

Forts of the American Frontier 1820–91

Central and Northern Plains

Ron Field • Illustrated by Adam Hook



RON FIELD was born in 1943. A history teacher for over 30 years, he was awarded the Fulbright Scholarship in 1982 and taught at Piedmont High School in California from 1982–83. He has traveled extensively in the United States, conducting research at numerous libraries, archives and museums, and has written several books on 19th century American history.



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Fortress • 28



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Central and Northern Plains

Ron Field • Illustrated by Adam Hook
Series editors Marcus Cowper and Nikolai Bogdanovic

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ASKB	Anne S. K. Brown Military Collection, Brown University Library
DPL, WHC	Denver Public Library, Western History Collection
EN	Eastern National
FAM	The Frontier Army Museum, Fort Leavenworth
FLNHS	Fort Larned National Historic Site
FSNHS	Fort Scott National Historic Site
KHC	Kansas Heritage Center
KSHS	Kansas State Historical Society
LOC	Library of Congress
MHS	Minnesota Historical Society
NA	National Archives
SCC, NA	Signal Corps collection, National Archives
SHSND	State Historical Society of North Dakota
SI	Smithsonian Institute
WAM	The Walters Art Museum, Baltimore
WPM	West Point Museum

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Measurements

Distances, ranges, and dimensions are given in Imperial values in this volume:

1 inch (in.)	2.54cm
1 foot (ft)	0.3048m
1 yard	0.9144m
1 mile	1.609km
1 pound (lb)	0.4536kg

The Fortress Study Group (FSG)

The object of the FSG is to advance the education of the public in the study of all aspects of fortifications and their armaments, especially works constructed to mount or resist artillery. The FSG holds an annual conference in September over a long weekend with visits and evening lectures, an annual tour abroad lasting about eight days, and an annual Members' Day.
The FSG journal FORT is published annually, and its newsletter *Casemate* is published three times a year. Membership is international. For further details, please contact:
The Secretary, c/o 6 Lanark Place, London W9 1BS, UK

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Introduction

A major period of westward expansion in the United States occurred during the first half of the 19th century. In 1790, most Americans resided east of the Appalachian Mountains and within a few hundred miles of the Atlantic Ocean. But by 1840 approximately one-third of these lived between the Appalachians and the Mississippi River, and many of their number were beginning to make their way across the Great Plains towards the Rocky Mountains.

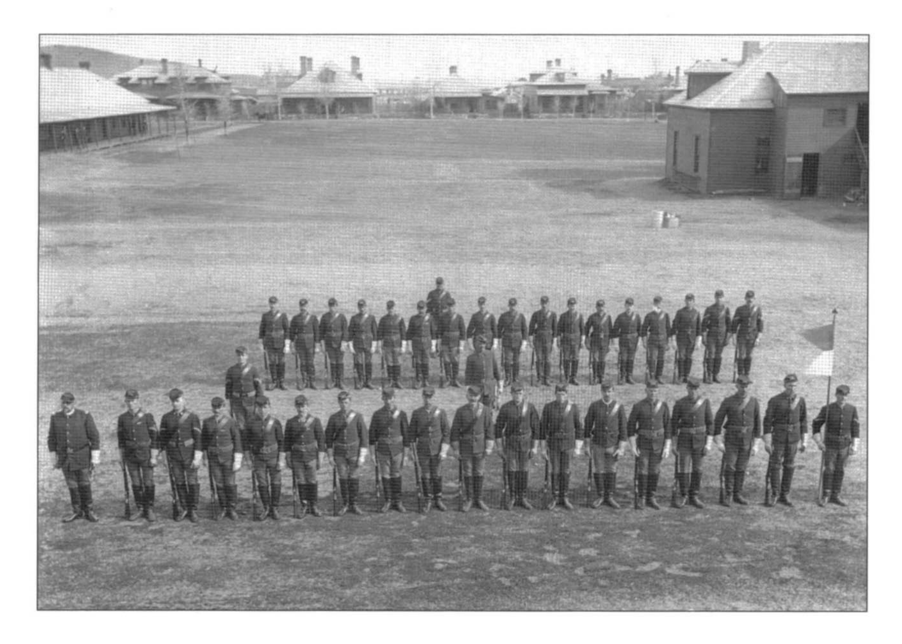
This outward thrust of settlement followed in the wake of some remarkable achievements in the realms of politics and pioneering. In 1803, the administration of President Thomas Jefferson struck the "noble bargain" with Emperor Napoleon Bonaparte. Otherwise known as the Louisiana Purchase, this acquired from the French 828,000 square miles of land that stretched west from the Mississippi River to the Rockies, and south from Canada to the border with the Spanish possessions of the southwest. The Lewis and Clark Expedition of 1804 whetted the appetite for exploration of this vast territory by tracing the Missouri River to its headwaters, following which it crossed the Rocky Mountains and descended the Snake and Columbia rivers to reach the Pacific Ocean.

The end of the War of 1812–15 finally enabled the American nation to concentrate fully on the way west. After 1830, President Andrew Jackson's forcible removal west of the Mississippi River of Native American tribes such as the Cherokee, Chickasaw, and Choctaw, did much to further pave the way for settlement. In 1842, the phrase "Manifest Destiny" was coined by New York newspaper editor John L. O'Sullivan to sum up the philosophy shared by millions of Americans that the United States had a divine right to become a transcontinental nation. By that time, fur traders had built forts and were operating along the Missouri River from St. Louis to the Rockies and beyond, and wagon trains were rumbling along the Santa Fe and the Oregon trails

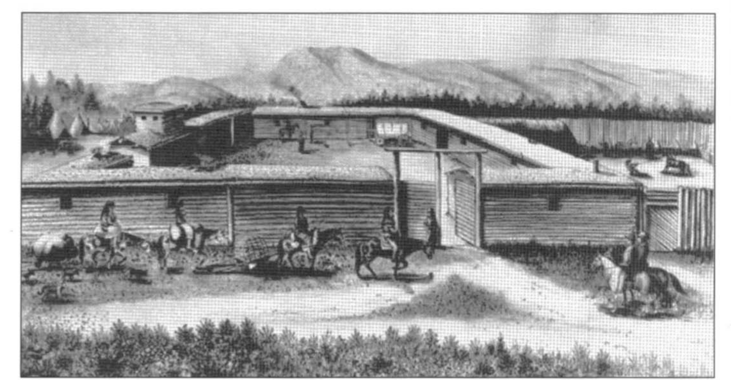
The Mormon migration of 1846 saw 4,000 souls set out from Nauvoo, Illinois, for the isolated Great Salt Lake Valley. The discovery of gold at Sutter's Mill in California in 1848 transformed a steady stream into a flood of westward migration. A succession of other gold and silver strikes, culminating in two government expeditions that confirmed the existence of gold in the Black Hills of Dakota Territory in 1874, further encouraged the mass desire to head west.

Although sectional rivalry before the Civil War prevented the commencement of construction of a transcontinental railroad (originally mooted in 1845), the secession from the Union of South Carolina in 1860, followed by most of the other slave-holding states, enabled Northerners to agree on a central route. Following the passage of the first Pacific Railway Act on July 1, 1862 the Union Pacific Railroad was chartered to be built westward across the Plains from Omaha, while the Central Pacific Railroad began to be built eastward from Sacramento. Finally joined by a golden spike, the two linked up at Promontory Point in Utah on May 10, 1869.

As millions of settlers flooded west to seek land, work on the railroad, or prospect for gold, the small US Army was tasked with the duty of protecting them from the Native American tribes that inhabited the Great Plains. The basic strategy adopted by the Army was the construction of a network of permanent forts and temporary cantonments, or camps, which were strung out along the trails, rivers, and railroads. The weakness of this strategy was the small size of the Army, which never rose above 25,000 men during the entire period of western expansion. As a result, regiments were usually dispersed between numerous different posts, and given diverse assignments. For



LEFT Dismounted cavalrymen drill on the main parade at Fort Yates, an open fort in Dakota Territory, during the 1880s. Troops from Fort Yates were involved in the death of Sitting Bull in 1890. (DPL, WHC)

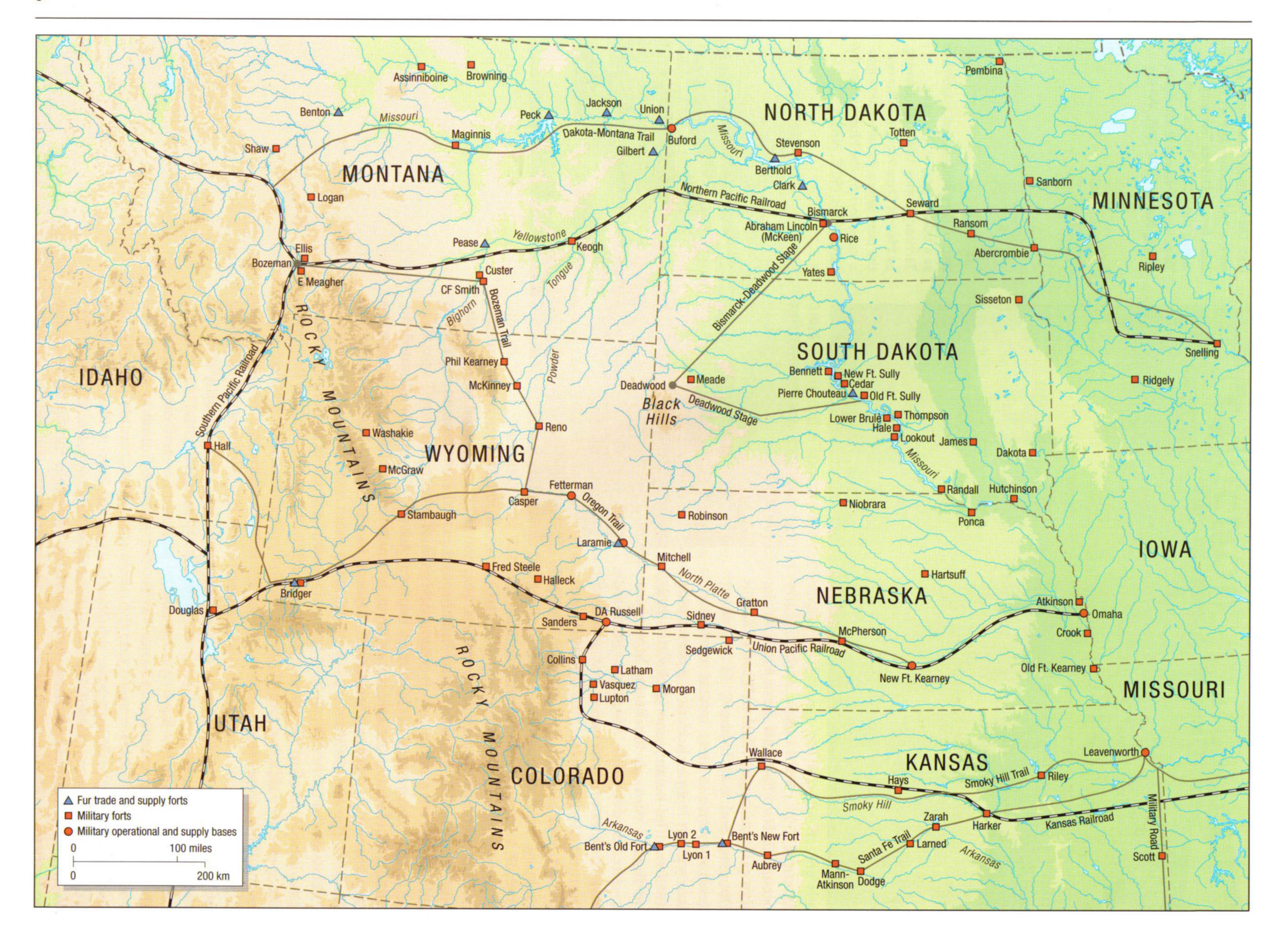


BELOW Fort Bridger was established as a trading post in Wyoming Territory during 1842. This drawing by Merritt Dana Houghton shows the post before its conversion into a stone fort by the Mormons in the early 1850s. (SCC, NA)

example, in 1874 the 2nd Cavalry occupied Fort Sanders, Fort Fred Steele, Camp Stambaugh, Camp Brown, Camp Douglas, and Fort Laramie, in Wyoming Territory, with a detachment at Omaha Barracks, in Nebraska. Hence, it was strung out from the neighborhood of Cheyenne, northward through the Rocky Mountains to the border with Montana Territory, which amounted to over 800 miles of frontier. Similarly, the 4th Infantry was spread out along the Union Pacific Railroad, with companies at Fort Bridger, Fort D.A. Russell, and Fort Sanders, in Wyoming Territory, and Camp Douglas, in Utah. One other company was posted at Fort Fetterman. Nonetheless, the system was designed to make the blue-coated soldier visible to the Indians, and placed him close enough to be able to prevent trouble and to react quickly when it occurred.

Prior to the passage of the Indian Removal Act of 1830, which relocated the Indian tribes east of the Mississippi River, where it was felt they might have the opportunity to become "civilized" farmers in the lands known as Indian Territory, the Army scattered its posts along the main routes west. Following the establishment of the "Permanent Indian Frontier," a chain of military posts was established from Fort Leavenworth in the north to Forts Washita and Towson in the south, to police the Native Americans and protect the white settlers.

By 1860, there were 73 forts and cantonments on the frontier. Increased hostile behavior among the Indians caused this number to reach a high mark of 116 posts by 1867. Often built by the troops who subsequently manned them, 36 of these forts were situated on the Northern and Central Plains, seven were placed by the fast-flowing waters of the Missouri River, while ten guarded the overland trails leading to Santa Fe, Denver, and the Colorado gold fields. Four were responsible for protecting the construction gangs building the Union Pacific Railroad, while two were the guardians of the Kansas Pacific Railroad. The remainder were dotted around the foothills of Colorado, Montana, and Wyoming territories. All these forts played a vital role in the story of the settlement of the American West.



MONTANA
NORTH DAKOTA
SOUTH DAKOTA
MINNESOTA
IDAHO
WYOMING
NEBRASKA
IOWA
UTAH
COLORADO
KANSAS
MISSOURI
ROCKY MOUNTAINS
ROCKY MOUNTAINS
Black Hills
Assinniboine
Browning
Benton
Missouri
Jackson
Union
Peck
Maginnis
Dakota-Montana Trail
Buford
Gilbert
Shaw
Logan
Pembina
Stevenson
Totten
Berthold
Clark
Sanborn
Northern Pacific Railroad
Bismarck
Abraham Lincoln (McKeen)
Rice
Seward
Ransom
Abercrombie
Ripley
Yates
Bismarck-Deadwood Stage
Sisseton
Snelling
Pease
Yellowstone
Keogh
Ellis
Bozeman
E Meagher
Custer
CF Smith
Bighorn
Bozeman Trail
Tongue
Powder
Phil Kearney
McKinney
Reno
Deadwood
Meade
Deadwood Stage
Bennett
New Ft. Sully
Cedar
Pierre Chouteau
Old Ft. Sully
Lower Brulé
Thompson
Hale
Lookout
James
Dakota
Ridgely
Southern Pacific Railroad
Hall
Washakie
McGraw
Fetterman
Casper
Oregon Trail
Stambaugh
Randall
Hutchinson
Niobrara
Ponca
Robinson
Laramie
Mitchell
North Platte
Hartsuff
Fred Steele
Halleck
Bridger
Douglas
Gratton
Atkinson
Omaha
Crook
DA Russell
Sanders
Sidney
McPherson
Sedgewick
Union Pacific Railroad
New Ft. Kearney
Old Ft. Kearney
Collins
Latham
Vasquez
Lupton
Morgan
Wallace
Leavenworth
Hays
Smoky Hill Trail
Riley
Smoky Hill
Harker
Kansas Railroad
Military Road
Zarah
Arkansas
Lyon 2
Lyon 1
Bent's Old Fort
Bent's New Fort
Aubrey
Santa Fe Trail
Larned
Mann-Atkinson
Dodge
Scott
Fur trade and supply forts
Military forts
Military operational and supply bases
0
100 miles
0
200 km

Chronology

1819	Yellowstone Expedition. Fort Atkinson established by the US Army.
1821	American Fur Company acquires a trade monopoly on the Missouri River.
1824	Dennis Hart Mahan graduates from West Point.
1827	Fort Leavenworth established by the US Army.
1828	Fort Union established.
1830	Mahan begins to teach military science and engineering at West Point. Indian Removal Act establishes the Permanent Indian Frontier.
1846	Dispute between the US and Britain over Oregon Country. May: Congress declares war on Mexico. June: Kearney's expedition sets out from Fort Leavenworth to capture Santa Fe in New Mexico.
1851	September: peace treaties with the Plains Indians signed at Fort Laramie.
1855	The Sioux Campaign.
1856	March: a council is held at Fort Pierre, Nebraska Territory between Brevet Brigadier General William S. Harney and representatives of the Sioux nation.
1861	April: the Civil War begins. Indian raids increase on the Plains.
1862	The Dakota War. August: siege of Fort Ridgely. September: attack on Fort Abercrombie.
1864	July: General Field Order No. 2, Headquarters, Department of Kansas, orders all military posts on the frontier to construct a stockade to protect troops and livestock. November: Sand Creek Massacre.
1865	The Civil War ends. February: attack on Camp Rankin.
1866	June: peace treaty talks begin with the Sioux at Fort Laramie. Bozeman Trail forts established. Red Cloud's War begins. December: Fetterman Massacre.
1867	August 2: Wagon Box Fight, near Fort Phil Kearny.
1868	Fort Laramie Treaty signed.
1874	Gold discovered in the Black Hills.
1876	The Great Sioux War. June: Battle of Little Bighorn.
1877	Crazy Horse killed at Camp Robinson, Nebraska.
1879	Dull Knife's band killed at Fort Robinson.
1881	Sitting Bull surrenders at Fort Buford, North Dakota.
1890	Ghost Dance religion begins near Fort Yates, North Dakota. Ghost Dance War begins. Sitting Bull killed. The Wounded Knee massacre takes place.

LEFT The location of key forts on the Central and Northern Plains between 1820 and 1891. Many fur-trade forts, established along the major river routes throughout the earlier period of expansion, were eventually replaced by military posts of various types, including open forts, and forts protected by either a wooden stockade or adobe walls. These forts guarded the main routes west, including wagon trails, stagecoach routes, railroads, and rivers. The railroads are shown as they were after completion in 1883.



RIGHT This watercolor by Alfred Jacob Miller provides the only visual record of the wooden-built Fort John (which later became Fort Laramie). Painted in 1834, it shows the interior of the fort during the fur traders' rendezvous held that year. (WAM)

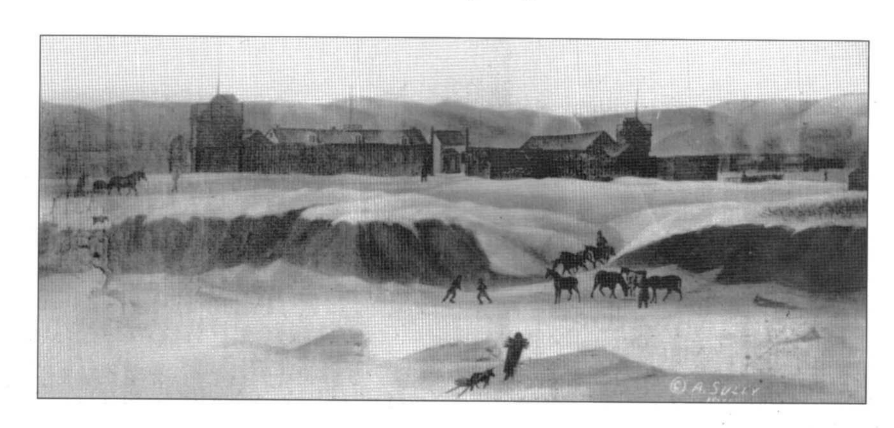
Development of the forts on the Central and Northern Plains

Fur-trade and supply forts

The American Fur Company built some of the first forts west of the Mississippi River. Originally established in Oregon by John Jacob Astor during 1808 to compete with the great fur-trading companies in Canada, this company acquired a monopoly of the trade in the Missouri River region in 1821, and later expanded into the Rocky Mountains.

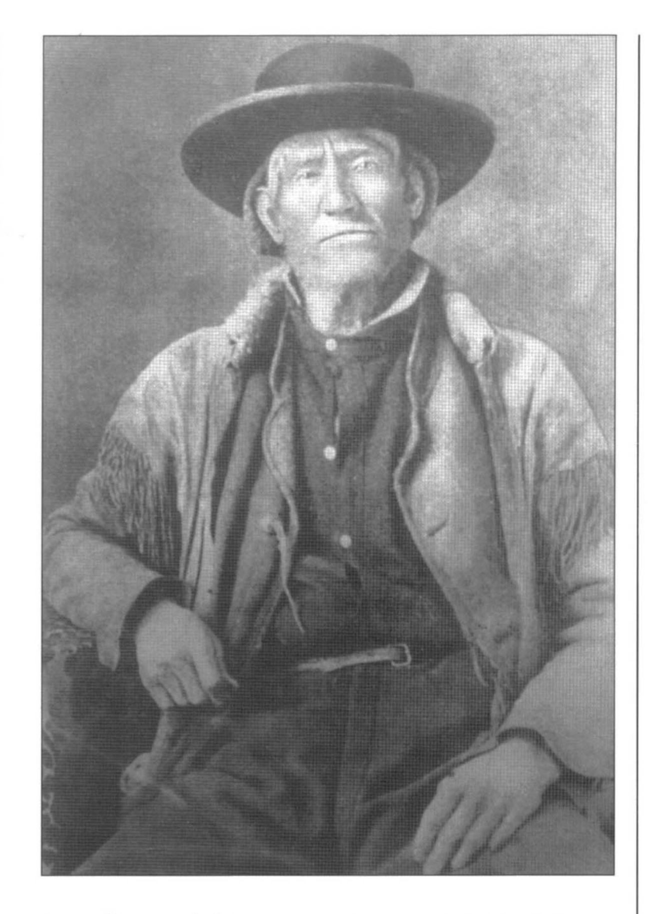
Located near the junction of the Yellowstone and Missouri rivers, Fort Union was established by the American Fur Company under the direction of Kenneth McKenzie in 1829. The work force probably consisted of carpenters and masons from St. Louis, plus *métis* (French Canadian and Indian laborers) from Quebec. This fort consisted of a stout stockade of vertical cottonwood logs, which enclosed a quadrangle measuring 220 x 240ft. The long axis of the fort ran almost due north and south, while the shorter sides paralleled the Missouri River. At the northeast and southwest corners stood imposing, two-story, stone bastions, which replaced earlier wooden ones. The accommodation of the employees and work force occupied a long building on the western side of the interior. A similar structure containing storerooms stood on the eastern side. A headquarters building stood at the north end, with a kitchen behind it. To the west end of the north wall stood a simple gate that led out on to the prairie. The main entrance was located in the center of the southern wall. Like most of the early trading posts, this feature had a double set of gates. When Native Americans came to trade, they were allowed past the outer gates into an area known as the "reception room" where they conducted their business. In order to convey the appropriate message to potential customers, a painting depicting a peace treaty being signed by Indians and white men was erected over the outer gates. During hostile times, or when customers were too numerous, trade was conducted through a small opening in the outer wall of the fort.

Dominating the main compound inside Fort Union was a 63ft tall flagstaff bearing an enormous National Flag acquired from the US Navy. Upon the arrival and departure of a riverboat, the flag was raised to the accompaniment of cannon fire, as a sign of welcome or safe passage.



The US Army occupied the old fur trade post called Fort Pierre Chouteau, in Nebraska Territory, during its campaign against the Brulé tribe of the Lakota Sioux, under Little Thunder, in 1855. The fort's two blockhouses can be seen at either end of the stockade. (SHSND, A5217)

Named for Pierre Chouteau, Jr., the St. Louis–based agent for the American Fur Company, Fort Pierre Chouteau was built on the site of an earlier trading post on the west bank of the upper Missouri River in 1832. This post was fortified in much the same way as Fort Union. Its stockade enclosed an area encompassing nearly 300 square feet, and was guarded by two large blockhouses located at opposite corners. Upon entering the "reception room" through the larger of the two outer gateways, visitors beheld two long, single-story buildings occupied by blacksmiths, carpenters, wheelwrights, and saddlers. These were separated by a passage that led through the inner gates and out to the compound. Paralleling the inner face of the stockade, but set back about 20ft, was another long building housing a trading store, plus accommodation for company employees. At the rear of the compound stood a larger building which paleontologist Thaddeus Culbertson described as being an impressive structure "with a porch along its whole front, windows in the roof and a bell on top and above it the old weather cock, looking for all the world like a Dutch tavern."

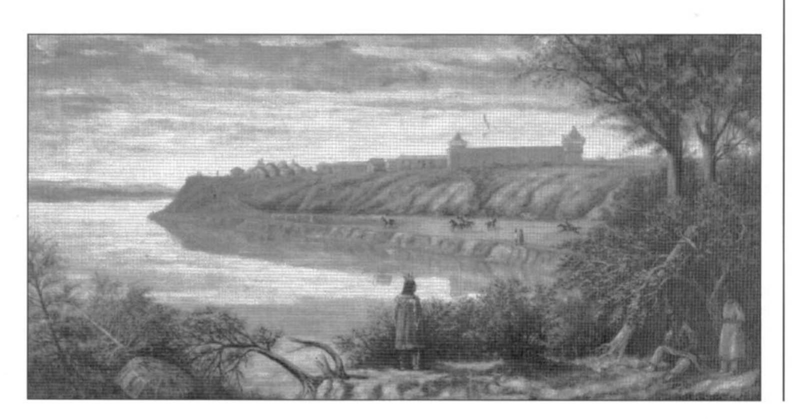


ABOVE Scout and guide Jim Bridger, and partner Louis Vasquez, established Fort Bridger, on the Black's Fork of the Green River in Wyoming Territory, during 1842. (DPL, WHC)

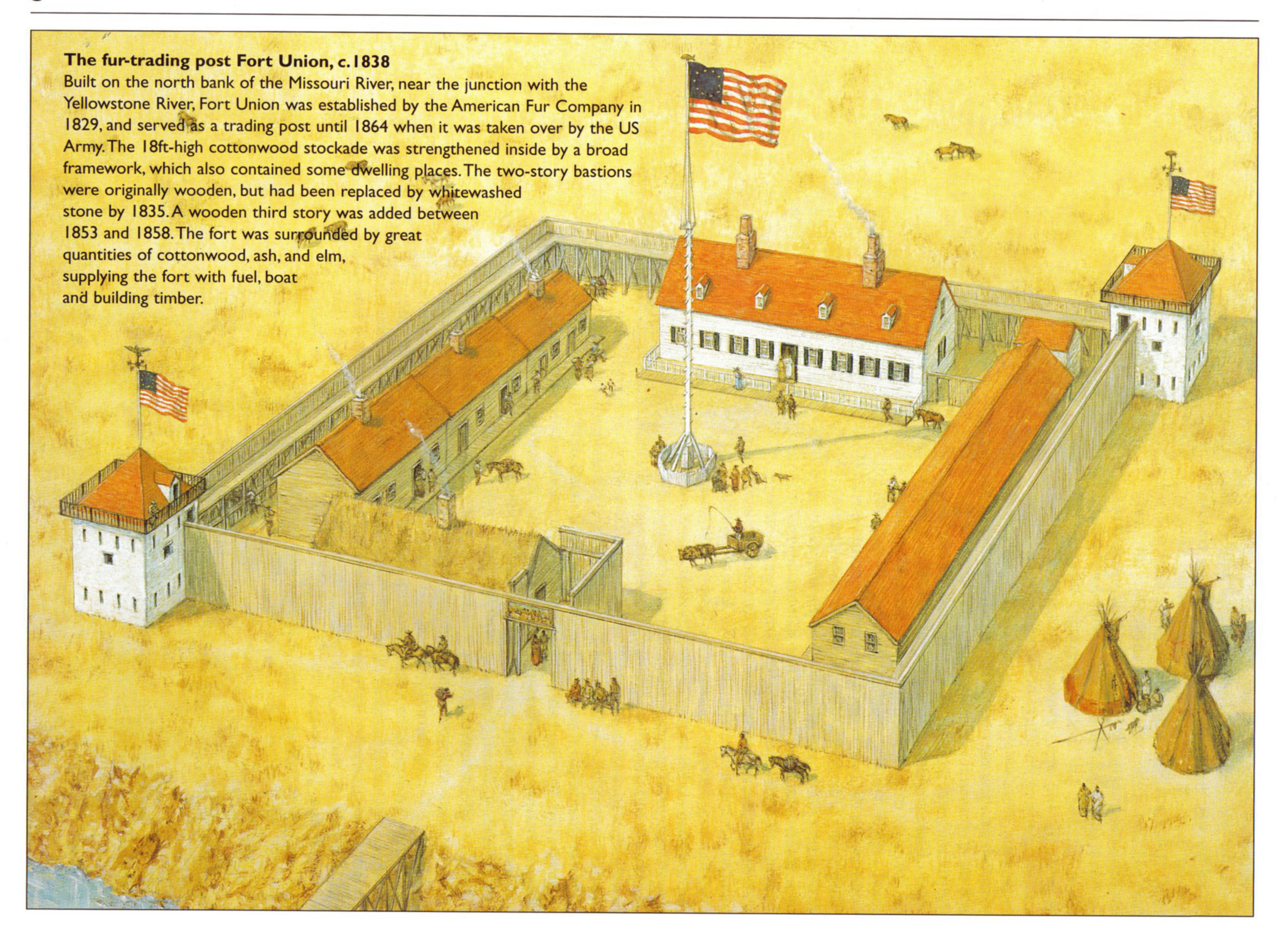
About 17,000 buffalo robes were traded each year at Fort Pierre for guns, shot, powder, sugar, salt, coffee, tobacco, blankets, and beads. According to contemporary accounts, there were times when the fort was surrounded by hundreds of Native American tepees. Settlement at the post paved the way for major routes west, including the Bozeman and Oregon trails. Fort Pierre was used as a fur-trading post until 1855, when it was sold to the US Army. Two years later, the post was dismantled to build Fort Randall, and today little remains above ground of its structure.

Built by the Bent brothers and Ceran St. Vrain on the mountain branch of the Santa Fe Trail in southeastern Colorado during 1833, Bent's Fort served traders and travelers for 18 years. Because William Bent was the manager and chief trader for the Bent St. Vrain Company in all the years of its prosperity, it was also sometimes called Fort William. Its adobe walls, containing two round towers, gave shelter to many explorers and adventurers. Kit Carson was a hunter there from 1831 to 1842. During the war with Mexico in 1846, the fort became a staging area for Colonel Stephen Watts Kearny's "Army of the West." Disasters and disease caused the fort's abandonment in 1849. William Bent later built Bent's New Fort at Big Timbers, Colorado, and served as an Indian Agent there during 1859–60.

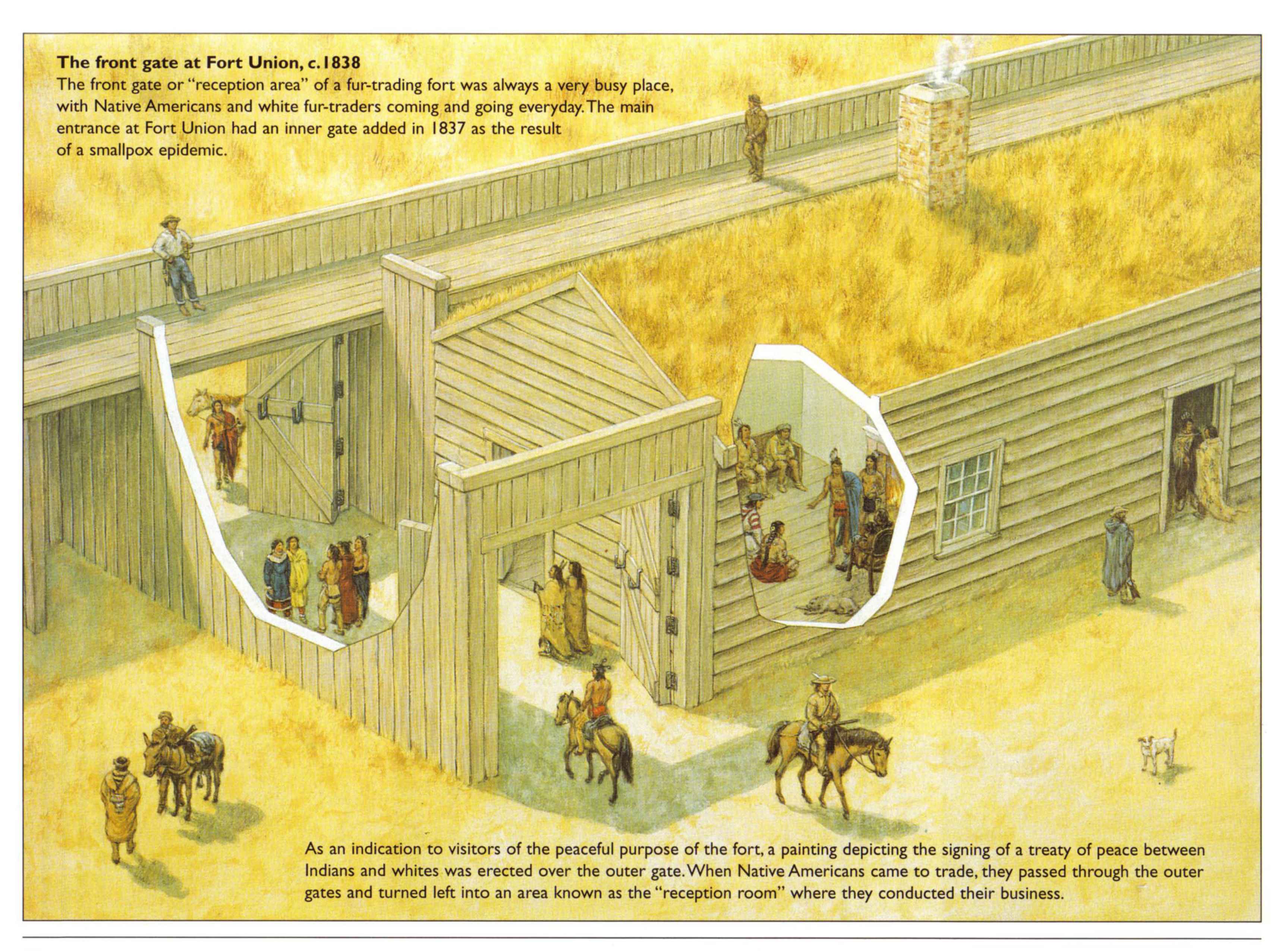
Established in the Rocky Mountains of Wyoming Territory in 1842 by mountain men Jim Bridger and Louis Vasquez, Fort Bridger originally consisted of a 10ft-high stockade, inside which was a large log storehouse stocked with dry goods, groceries, liquor, tobacco, and ammunition. Bridger's residence, also built of logs, was situated diagonally across from it in the opposite corner of the stockade. This fort, and the ranch nearby, proved to be one of the main hubs of westward expansion during the 1840s as it became a frequent point of rendezvous for Mormons, gold prospectors,



BELOW Colonel Philippe Regis de Trobriand, 13th Infantry, painted Fort Berthold, one of the old fur trade forts in Dakota Territory, shortly after he arrived to take command of the post during 1867. (SHSND, 12468)



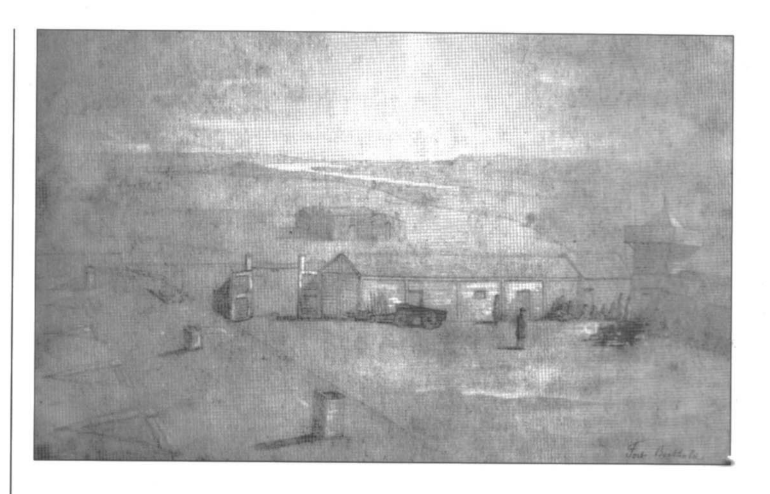
The fur-trading post Fort Union, c.1838
Built on the north bank of the Missouri River, near the junction with the Yellowstone River, Fort Union was established by the American Fur Company in 1829, and served as a trading post until 1864 when it was taken over by the US Army. The 18ft-high cottonwood stockade was strengthened inside by a broad framework, which also contained some dwelling places. The two-story bastions were originally wooden, but had been replaced by whitewashed stone by 1835. A wooden third story was added between 1853 and 1858. The fort was surrounded by great quantities of cottonwood, ash, and elm, supplying the fort with fuel, boat and building timber.



The front gate at Fort Union, c.1838

The front gate or "reception area" of a fur-trading fort was always a very busy place, with Native Americans and white fur-traders coming and going everyday. The main entrance at Fort Union had an inner gate added in 1837 as the result of a smallpox epidemic.

As an indication to visitors of the peaceful purpose of the fort, a painting depicting the signing of a treaty of peace between Indians and whites was erected over the outer gate. When Native Americans came to trade, they passed through the outer gates and turned left into an area known as the "reception room" where they conducted their business.



This sketch by de Trobriand shows the interior of Fort Berthold, including the gate and one of the blockhouses. (SHSND, A3248)

pilgrims, mountain men, Indians, and the Army.

Purchased for $8,000 by the Mormons in the early 1850s, Fort Bridger was transformed by the construction of several stone houses enclosed by a 14ft-high stonewall protecting a 400ft-square compound. Destroyed by the Mormons when the US Army arrived to enforce the laws of the United States in 1857, the fort was converted into an open military post, and remained as such until its final closure in 1890.

Other American Fur Company trade forts included Fort Clark, a small post about 100 feet square established on the banks of the Missouri a few miles below the mouth of the Knife River in 1831. Located where the Teton River flows into the Missouri, Fort McKenzie was built in Blackfoot territory during 1832 and operated until 1844, when it was burned to the ground. Fort Berthold was situated near the confluence of the Little Missouri and Missouri rivers in 1845. Established at the head of the Yellowstone River by William Sublette and Robert Campbell in August 1833, Fort William was originally in competition with the American Fur Company. However, as with most other rivals, this post was bought out by the larger company as it extended its monopoly over the whole of the Central and Northern Plains.

Known as the "Head of the Navigation," Fort Benton was situated at the farthest point up the Missouri River that traders could venture. Established in 1846, it was originally known as Fort Lewis, but was re-named Fort Benton in 1850. Encompassing an area approximately 150ft square, Fort Benton was protected by a 14ft-high adobe wall, and was complete with blockhouses on each corner and a large timbered gateway. A smaller entrance admitted Indians, a few at a time, into a "reception room" which was part of the trade store, where they could hand over pelts and receive goods in return.

By 1865 the fur trade was dead and the American Fur Company sold Fort Benton to the military, ending its control of the Upper Missouri. The post had deteriorated considerably by the time the US Army finally occupied it in 1869. Within six years, the fort was abandoned by the military and eventually fell into disrepair and collapsed.



Fort Union was in a dilapidated state when photographed in the 1860s. By this time, the post belonged to the North Western Fur Company. (SHSND, 0221-02)

The types of military forts

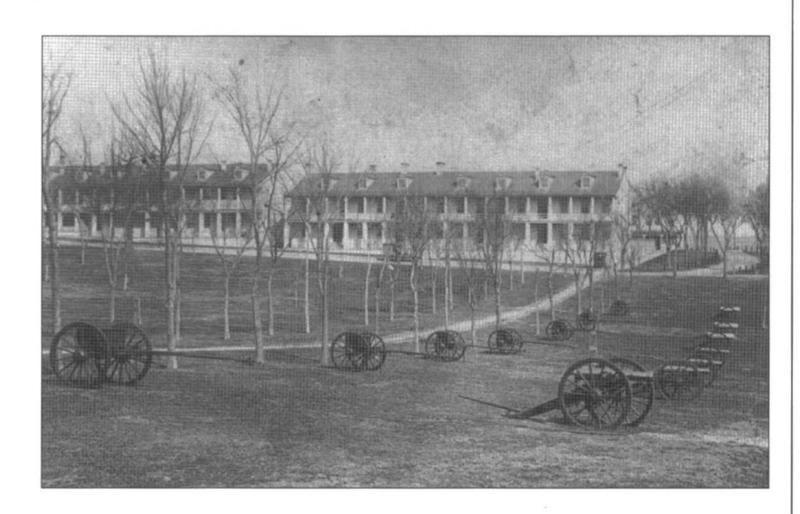
The military posts of the Central and Northern Plains were of various types, their method of construction being dependent on when and where they were built. A major influence on the design and development of many of these forts was Professor Dennis Hart Mahan, who graduated from West Point in 1824, and subsequently taught mathematics and military engineering at the Academy until 1872. During this period, he instructed virtually every cadet in military science, and wrote texts such as the *Complete Treatise on Field Fortifications* (1836), and *Summary on the Cause of Permanent Fortifications* (1850), which were a major influence on the design and construction of frontier forts during most of the period of western expansion.

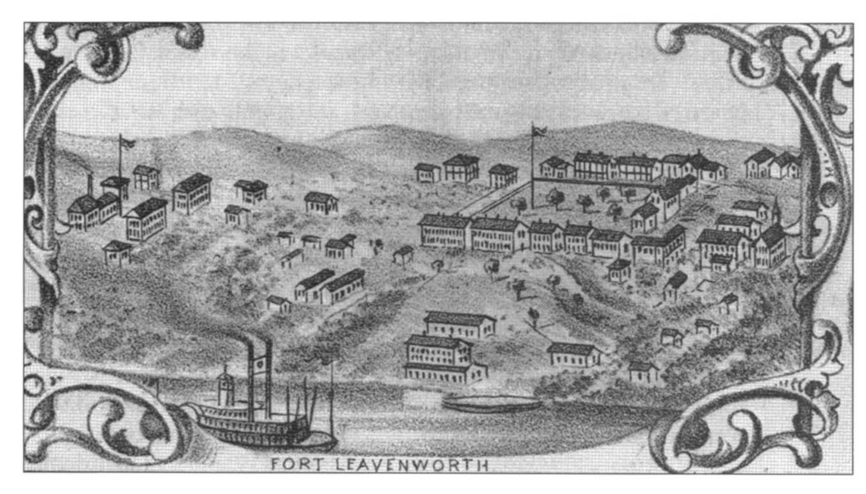
Open forts

Many of the forts built on the Plains of Kansas, Nebraska, Montana, and the Dakotas, were not typical forts protected by stockade walls or other forms of defense works. Based on a pattern established by Colonel Henry Leavenworth at Cantonment Leavenworth in 1827, they often consisted of a collection of military buildings fronting on a large parade ground, whose security was to a large extent dependent on offensive tactics such as active scouting and patrolling of the surrounding country. Regarded as being "arranged by military plan," this type of post was often built on level ground on a bluff by a river, with sometimes as many as three sides protected by steep cliffs overlooking deep water.

Limited local building materials obviously dictated the design of this type of frontier post. The central Plains of the mid-19th century were a vast treeless expanse of prairie. Even the simplest of fortifications, such as a

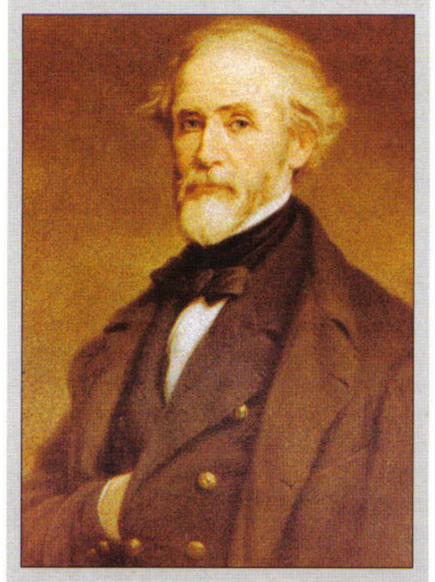
The barracks at Fort Leavenworth were built around 1835 for enlisted men of the 1st US Dragoons. The cavalry had occupied them by the time this photograph was taken in 1869. (FAM)





This westerly facing view of Fort Leavenworth was drawn in 1860. The main parade can be clearly seen on the right, with the barracks on the far side. (FAM)

Dennis Hart Mahan



Graduating from West Point Military Academy at the top of his class in 1824, Dennis Hart Mahan spent four years in France, where he studied the writings and works of the French military genius Marshal Sebastien le Prestre de Vauban. Adapting Vauban's principles to his own ideas on the changing nature of warfare, he returned to West Point in 1830 to teach mathematics and engineering, and remained there until 1872. During this time he also wrote a number of textbooks, including *Complete Treatise of Field Fortifications* (1836), and *An Elementary Treatise on Advance-Guard, Out-Post, and Detachment Service of Troops* (1847). The latter volume became America's first comprehensive work on strategy and tactics. Later titles included a *Treatise on Field Fortification*, and *Summary of the Course of Permanent Fortification*. Both of these titles were originally published in 1862. Professor Mahan was primarily, if not solely, responsible for the theories of defensive warfare used by the Union and Confederacy during the Civil War. Meanwhile, many of the wooden blockhouses and stockade forts constructed on the frontier, particularly following the Dakota War of 1862, were built on "the general plan of Mahan." (Photo courtesy WPM)

logs-on-end stockade, would have been a very expensive feature to construct, with timber having to be carried from as far away as the Ozark Mountains of Missouri or the Rocky Mountains of Colorado.

Furthermore, few of the rules of 19th-century warfare applied against the hostile Plains Indians, who generally avoided siege warfare and pitched battles that usually resulted in high casualty rates. As a master of hit-and-run warfare, the Plains warrior was more likely to ambush a small detachment of soldiers once they had left the protection of their military post.

The close proximity of the buildings at some of these posts avoided the need for a stockade to defend them. This was particularly the case with Fort Atkinson, built in Nebraska during 1819 by the Yellowstone Expedition commanded by Colonel Henry Atkinson, 6th Infantry. The first military fort established west of the Missouri River, this post was described by visitor Prince Paul, the Duke of Wurttemberg, as consisting of "a square structure. Its sides were each 200 American yards long. There were eight loghouses, two on each side. There were three gates leading into this fort. Each house consisted of ten rooms, and was 25ft wide and 250ft long. The roof of the houses sloped toward the interior court. The doors and windows opened upon this court. On the outside, each room has an embrasure or loophole."

At least one post built later on the Plains followed this pattern. Fort Totten, on the south side of Devil's Lake, began life as a temporary stockade of un-hewn logs, tasked with watching over the nearby Sioux reservation. Established in the summer of 1867 by Captain Samuel A. Wainwright and companies A, D and K of the 31st Infantry, it was meant to be a temporary affair and only rough-hewn logs were used in its construction. But when a permanent fort was established nearby, it consisted of a group of 19 brick buildings, with "new and comfortable quarters for officers and men," arranged so close together around the parade that the post was considered "defensible without a stockade."

The first open fort built west of the Missouri River, Fort Leavenworth was established as a cantonment, or encampment. The garrison of this post, which originally consisted of the 3rd US Infantry, under Colonel Henry Leavenworth, was tasked with the responsibility of protecting the wagon trains traveling along the trail to Santa Fe in New Mexico. With the closure of Fort Atkinson in Nebraska, the Leavenworth garrison also became responsible for watching over the Missouri River fur trade. Following the Indian Removal Act of 1830, Fort Leavenworth began to fulfill a key role policing the "Permanent Indian Frontier" until 1853. Built on the bluffs on the east bank of the Missouri River, this post established the plan on which many of the other forts on the Great Plains were based. Originally forming an "L" shape, by 1870 the officers' quarters, barracks, magazine, hospital, and storehouses stood around three sides of the 495 x 490ft parade ground.

On becoming post commander in 1827, Colonel Philip Kearney, 1st US Dragoons, expressed concern that Fort Leavenworth was vulnerable to attack, and arranged for a wooden blockhouse to be built at the corner of the parade ground. He also ordered the construction of a commander's residence arranged so that steps led up to a "principal floor" raised above ground level, while the floor at ground level was known as the basement. A portico ran along the entire front of the building at both levels. Suited to the weather conditions, which in wintertime produced deep snow, this building, plus the officer's quarters and barracks erected at the post, became the model for later Plains forts, such as Forts Scott, Randall, and Laramie





TOP LEFT This barracks building at Fort Scott in Kansas was built in 1844 and was first occupied by Company A, 1st Dragoons. The soldiers bunked on the upper or "principal" floor and took their meals in the mess hall on the ground floor, otherwise known as the basement. (FSNHS)

BOTTOM LEFT Designed as officers' quarters, the "Rookery" appeared on an 1828 plan of Cantonment Leavenworth as being virtually complete. Probably named the "Rookery" (or bird house) after the eagle insignia worn by the colonels who stayed there, it is today the oldest residence in Kansas. Note the entrances are on the "principal" floor, to ensure access during deep winter snow. (FAM)

(the barracks at the latter post being designed by Lieutenant Daniel P. Woodbury of the Engineer Corps).

Established in 1842 to assist with the protection and maintenance of the Permanent Indian Frontier, Fort Scott was built adjacent to a military road designed to traverse Indian Territory from Fort Snelling in the north to Fort Towson in the south. Its parade ground was 350ft square, with the corners oriented due north, south, east, and west due to the topography of the bluff on which it was placed. The powder magazine, flagpole, and well canopy were placed in the center of the parade ground, with structures such as the officers' quarters, dragoon barracks, and stables, erected on all four sides.

Fort Scott was abandoned in 1853, and its buildings were sold at a public auction two years later. The former military buildings became the township of Fort Scott in Kansas Territory. Reactivated as a military post during the Civil War, the post served as the headquarters of the Army of the Frontier, and also as a supply depot and refugee center for displaced Native Americans. Although closed once again in 1865, the fort saw a further period of service between 1869 and 1873, when it was used as military headquarters during the construction of the railroads through southeastern Kansas into Indian Territory.

Bought from fur traders by the Army in 1849, Fort John was transformed into Fort Laramie. By 1857, this post was described as

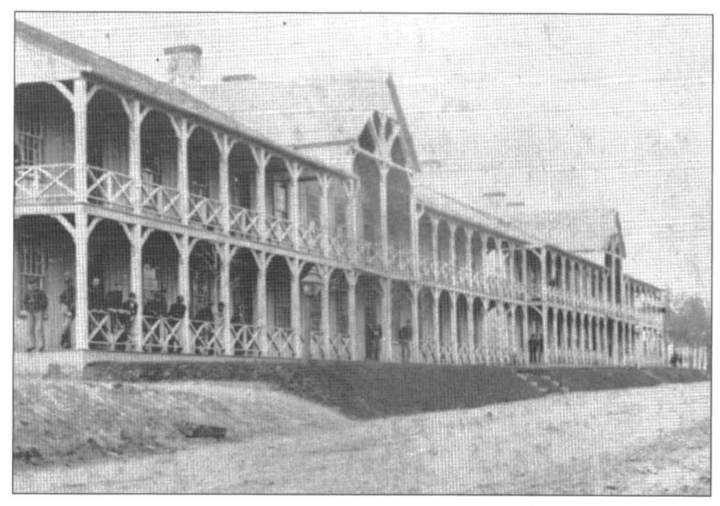
Henry Leavenworth



Henry Leavenworth was born in New Haven, Connecticut on December 10, 1783. He studied and practiced law, and at the beginning of the War of 1812 was appointed a captain in the 25th Infantry. He was brevetted lieutenant colonel for gallantry at the battle of Chippewa, and was promoted to the rank of colonel for meritorious conduct at Niagara, where he was wounded. He received the rank of brigadier general on July 25, 1824, for "ten years' faithful service in one grade," and subsequently commanded an expedition against the Arickaree Indians on the upper Missouri River. He founded several military posts on the western frontier, including Cantonment Leavenworth in May 1827. Selecting high ground on bluffs overlooking the Missouri, he established the pattern for many other Plains forts by making the parade ground the center of the new post, with all the important military buildings fronting on to the parade. (Photo courtesy FAM)

In 1872, Fort Laramie in Wyoming Territory was described as "a nicely-kept post; trees have been planted, and the parade ground leveled." This post served as an important staging area for troops during the Indian campaigns of 1876. (DPL, WHC)





Photographed c.1870, these enlisted-men's barracks at Fort Leavenworth were built by workmen from Syracuse, New York, during 1855. (KSHS)

consisting of "two or three two-story wooden buildings and about 20 one-story adobe structures, also one or two store-houses, all of which have been built irregularly in every and any direction. There is a large open square for drill and parade purposes." When General William Tecumseh Sherman inspected the post in August 1866 he observed that there was "a mixture of all sorts of houses of every conceivable pattern and promise scattered about."

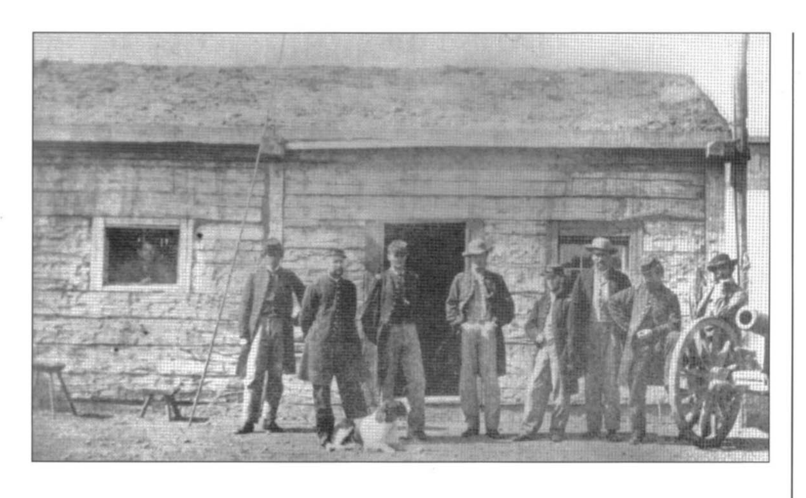
A supply fort and distribution depot built on the Northern Plains in 1867 to accommodate "at least a regiment of men," and with little woodland nearby, Fort D.A. Russell in Dakota Territory was described as being situated on "a plateau remarkable for its beauty, and with the [Rocky] mountains, upon which there is perpetual snow, in sight to the west." Without a stockade, it encompassed an area of approximately 65 acres, which included an unusual diamond-shaped parade ground designed by Brevet Brigadier General J. D. Stevenson, colonel of the 13th Infantry, and Surgeon C. H. Alden. According to Alden, the "diamond form of the parade was adopted not only for the sake of appearance, but to avoid the inconvenience of the very large inclosed space, which would have resulted from the ordinary rectangular or square space, owing to the great number of buildings required." Fort Keogh, established in Montana Territory during 1876, also had a diamond-shaped parade.

The lumber used to construct the wooden frame buildings at Fort D.A. Russell was hauled over 100 miles from Denver and the Black Hills. Built from "rough boards placed upright, with the cracks battened," the 12 company barracks were designed to accommodate 80 men apiece, and measured 80ft long by 30ft wide. The quarters for married soldiers were described as badly constructed "log huts." In 1867, Surgeon Alden commented, "Better quarters would, no doubt, have been erected long since, could the lumber be obtained."

Stockade forts

According to Professor Mahan, the "application of wood to the purposes of defense" was one of paramount importance in the United States and its territories. A blockhouse, surrounded by a defensive stockade, was considered to be impregnable to attack if properly defended, and was "peculiarly suitable to either wooded or mountainous positions." Heavily influenced by the teachings of Mahan, the architects of many of the military posts constructed

on the northern plains of Dakota Territory, Montana and Wyoming were often close to an abundance of timber and, where necessary, had their buildings and barracks enclosed and protected by a stockade. This was particularly the case with early forts such as Fort Pierre and Fort Berthold, both of which were later purchased by the Army from the American Fur Company.



Living conditions varied tremendously in frontier outposts. Both the Post Commandant and Post Surgeon shared this hewed timber building at Fort Berthold, in Dakota Territory, built during 1864. (SHSND, A2835)

However, many military posts established in these regions did not receive the protection of a stockade until after they had been subjected to attack. As a result of Indian uprisings in Minnesota and Dakota Territory during 1862–63, and an increase in the number of Army horses and mules being stolen on the Central Plains in 1864, General Field Order No. 2, issued from the Headquarters, Department of Kansas, on July 31, 1864, required that stockades or abatis enclosures be provided for all troops and livestock at military posts on the frontier.

Established in 1857 by Colonel J.J. Abercrombie to protect settlers from the Dakota Sioux, Fort Abercrombie was built on the left bank of the Red River of the North, in Dakota Territory, at Graham's Point, 12 miles north of the confluence of the Bois de Sioux and Otter Tail Rivers. This fort was evacuated early in 1859 but re-garrisoned and rebuilt in July of that year. Attacked and besieged during the Dakota War of September 1862, by the following year Fort Abercrombie was described as forming a rectangle 675 × 625ft, and was enclosed by "a stockade of logs projecting from the ground from 8 to 12 feet." Blockhouses, or bastions, of hewn logs were also erected at the northeast, southeast and southwest corners. Stockades were also added to Forts Ridgely and Ripley during the same period. During the following year, Fort Abercrombie became a major supply depot for the campaigns conducted by generals Sibley and Sully against the Sioux from 1863–65.

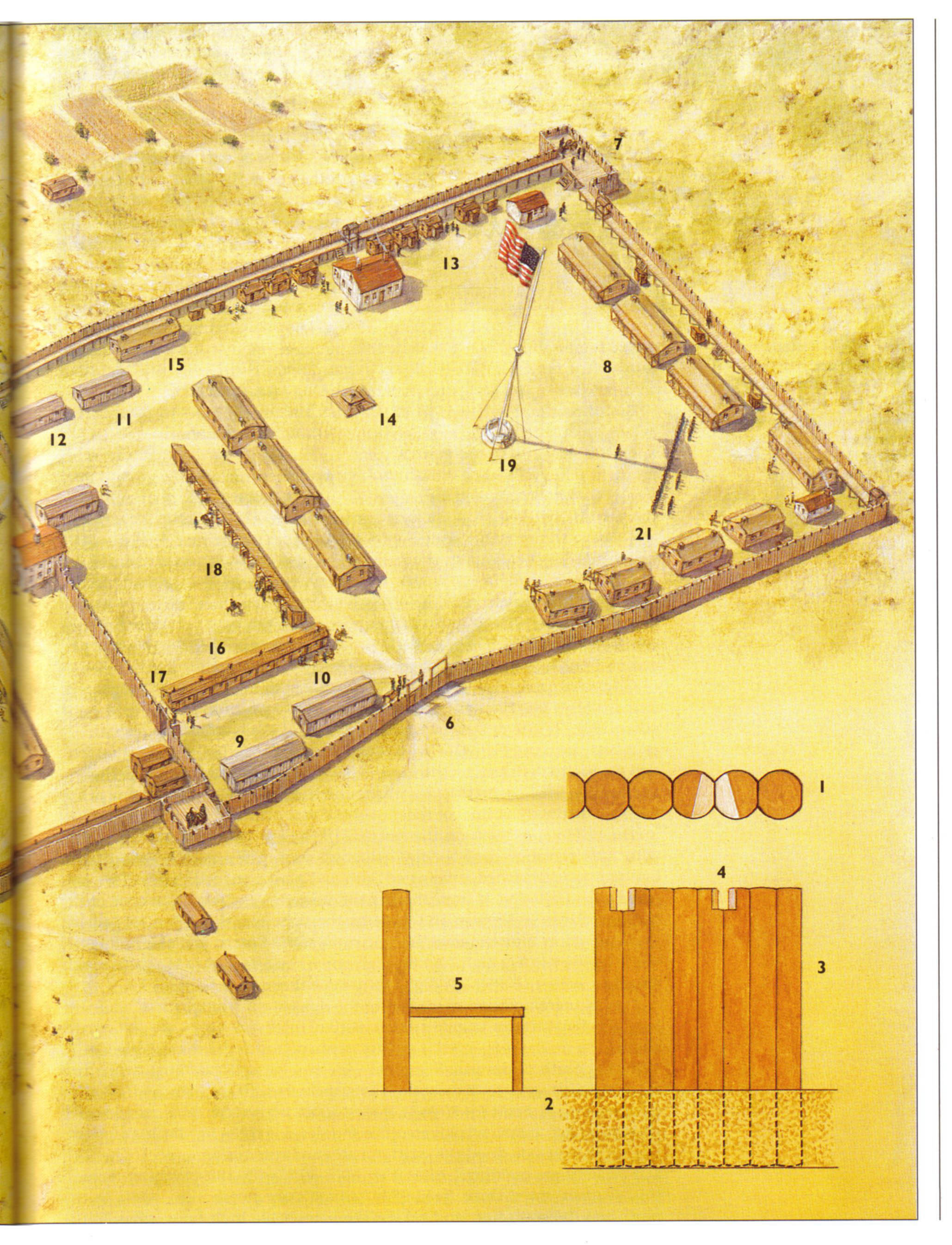
Fort Phil Kearney in Dakota Territory was an elaborate timbered fort with blockhouses and extensive barracks. Located on the Bozeman Trail, its construction was planned and supervised in 1866 by Colonel Henry B. Carrington, 18th Infantry, and the bulk of the work took only three months to complete. A comment on one of Carrington's original plans for the fort stated: "Exhaustless supplies of Pine abound within 5 miles accessible with ease." However, a report in the *Army and Navy Journal* indicates that construction was not straightforward, as every phase of the work was done in "the face of Indians who have repeatedly attacked hay and timber parties, and have made dashes at the pickets within half a mile of the post."

Measuring 600ft by 800ft, the fort was built on a plateau with a natural glacis (or slope) on all sides. The stockade was described as consisting of "pine, hewn to a touching surface, and after the general plan of Mahan." At two corners were blockhouses built from 18in.-diameter pine logs. The parade ground was 400ft square, and was surveyed and laid out "before the turf was cut by any wagon track." Paths 12ft wide crossed the parade ground, at the center of which was a 110ft flagstaff displaying the national colors. A graded street of 20ft width bordered the parade ground. A Quartermaster's yard, measuring 200 × 600ft, contained warehouses and workshops. On the east side of the fort, through which ran Little Piney Creek, was a corral protected by a 10ft-high palisade that contained the quarters for teamsters, civilian employees, plus stock, hay, and wood. Buildings in the main part of the fort consisted of barracks, a guardhouse, and band quarters.

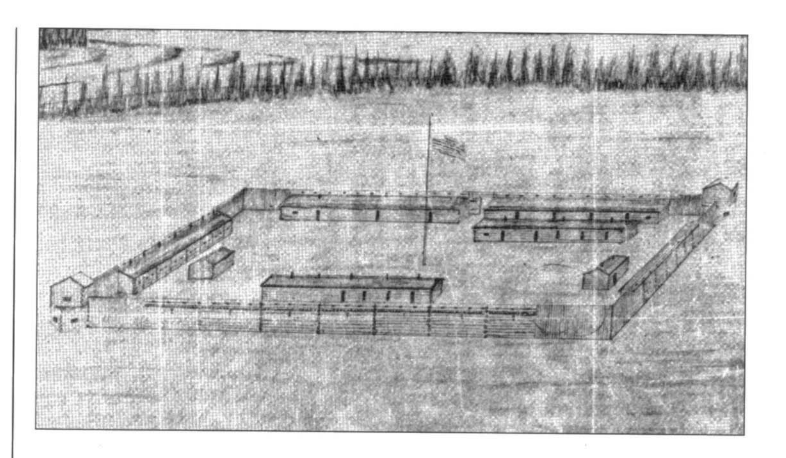
Fort Phil Kearney c.1867

Fort Phil Kearney, in Wyoming Territory, was one of the largest fortified frontier posts of the post-Civil War period. Begun in 1866, it was designed and carried to basic completion under the supervision of Colonel Henry B. Carrington, 18th Infantry. The fort originally measured 600 × 800ft. The stockade, details of which are shown in the inset illustrations at bottom right, consisted of logs of a minimum thickness of 1ft that were slabbed to a 4in. touching surface on two sides (1). These were placed in a 3ft-deep, gravel-filled trench (2), which left their top 8ft exposed to form the wall (3). Embrasures for small arms notched the top of the wall at about every fifth log joint (4). These flared from 6in. at their inner opening to about 1ft at the outer face of the stockade. A continuous banquette or raised way (5) 3ft off the ground extended along each wall. Open sentry stands measuring 4ft × 6ft, and 4ft off the floor, were placed at intervals along the wall. The gates (6) were of heavy plank, and had smaller wicket gates through them. The blockhouses (7), located in the northeast and southwest corners, were square, two-story buildings, with small-arms loopholes on the ground floor and cannon embrasures on the upper floor. Other key features of the fort included the barracks (8); the commissary (9) and quartermaster issuing warehouses (10), plus their respective storehouses (11 and 12); temporary commissioned officer's quarters (13); magazine (14); hospital (15); laundresses quarters (16); NCOs' quarters (17); cavalry stables (18); flag staff (19); fenced hay yard (20); and sutler's store (21).





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New Fort Sully, depicted in this sketch by an unknown artist, was established as a stockade fort in South Dakota in 1866. Note the rifle loopholes around the entire length of the parapet, and the cannon embrasures in the two blockhouses. (NA)

Fort Sanders (originally called Fort John Buford) in Dakota Territory was another example of an elaborate timbered fort. Named in honor of Brigadier General William P. Sanders, who was killed at Knoxville, Tennessee during the Civil War, Fort Sanders was established in 1866 to guard the Lodge Pole Trail and to provide protection for survey and labor crews building the Union Pacific Railroad. At the time of its construction, this fort was described as being "upon a beautiful elevation, next which, through the ravine on the south side, runs an excellent stream, known as Spring Creek, having its source from a spring near the Black Hills, running Summer and Winter, passing through the center of the corrall [sic], furnishing the entire command and stock with pure water, and emptying itself into the Big Laramie river."

Built from lumber hauled from the Black Hills, eight miles to the east, the defenses consisted of "a most perfect stockade, with loopholes well arched upon the side to give the greatest range to musketry." Erected halfway along the right flank wall was a blockhouse. A two-story structure, the ground floor measured 40ft square and had walls of "hewed timber" 10ft high and 10in. thick, with "two rows of loopholes cut three-inch opening upon [the] inside, and flaring to ten inches width upon the outside; thus giving each musket a range of fire over half a mile of ground." The upper story measured 36ft square and 6ft high, and fronted over the main corners of the ground floor – presenting "as many fronts as an octagon building." This was "pierced with two port holes upon each front for 12-pounder mountain howitzers." An observer commented in 1867 that this blockhouse "commands ravine and approaches, and in it one hundred men can successfully resist the assault of 2,000 Indians."

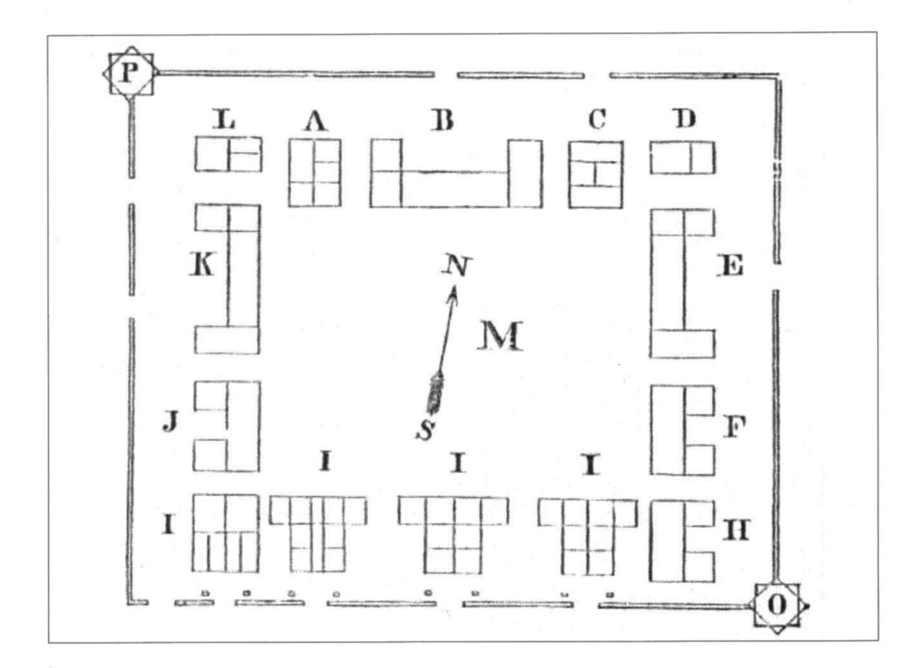
Originally garrisoned by companies A and F, 36th Infantry, and Company G, 2nd Cavalry, the interior of Fort Sanders consisted of a parade measuring 400 × 223ft, in the middle of which was "one of the handsomest flagstaffs to be found upon the Plains, being a complete ship's spar, the mainmast 60 feet, and the topmast 40 feet, set in crosstrees so as to be lowered at will. It is straight as an arrow, with gradual taper from ground to top, and the colors flying at the head are distinctly visible for miles over the vast plain."

The headquarters was on the east side of the fort, and measured 36 × 40ft, with 13ft elevation and a "hip" (sloping) roof. The interior walls of this building were described as being of "lath and plaster stained dark yellow; and penciled in imitation of stone, having the appearance of mastic, in style of the National Banks in Denver, and done by the same man Mr. Flinn, of Denver. Over the doors and windows are imitation stone lintels, and the ceilings of white plaster ten feet high." An 8ft-high porch was attached to the front of this structure, with a smaller, 6ft-high extension either end of that.

The Adjutant's office was situated to the right of the headquarters, while the Surgeon's building was found to its left. Both of these structures were 30ft square, and had "a similar roof, interior arrangement and finish to the Headquarters."

To the north of the parade ground were two barracks buildings, while two more were situated to the south. These measured 100 × 25ft, and afforded sleeping arrangements for 80 men, a mess room where "the same number may sit comfortably at tables," plus an office and sleeping room for the first sergeant.

On the west side stood the quartermaster and commissary offices, described as a "handsome building," measuring 60 × 30ft, with 13ft elevation. Behind this structure stood three "well-filled" commissary storehouses, while to the north was the grain store and bakery, the latter being built from stone. To the



In this ground plan of Fort Ellis, which was built in Montana Territory during 1867, the south-facing wall is interrupted by no less than five gateways, or gaps, which indicates that it probably looked out on the Gallatin River. (*Report on the Hygiene of the United States Army, 1870*)

northwest was another stone structure housing the blacksmith shop and wagon shop. Behind the headquarters building, and measuring 230 × 32ft, was "the largest stables west of the Missouri River." Beyond this, and 400 yards southwest, stood a stone magazine containing "an abundant supply of cavalry, artillery, and infantry ammunition."

Fort Ellis was established by the Gallatin River in Montana Territory on August 27, 1867 by order of General Alfred Terry. Named for Colonel Augustus Van Horne Ellis, a Union officer killed at Gettysburg, this fort protected the settlers in the Gallatin valley from Indian raids. Originally manned by three companies of the 13th Infantry under Captain R. S. LaMotte, this post measured 390 × 427ft, and was protected by a temporary, 10ft-high stockade plus blockhouses at the northwest and southeast corners. The buildings were of "unhewn [sic] pine logs, plastered with mortar," which faced onto a parade ground. Outside the stockade was a sawmill driven by a Samson Leffel turbine-wheel, which was powered by water brought by a ditch from a canyon five miles away.

Not all stockade forts featured defensive works on all sides. The second-phase stockade built at Fort Buford in North Dakota during 1867 guarded three sides of the post, while the south side was protected by the Missouri River. The stockade at Fort McKeen, a sub-post of Fort Abraham Lincoln in the same territory, formed a chevron-shape pointing westward, with blockhouses at either end and one halfway along its length. The sharp drop to the Missouri River was considered sufficient to protect the eastern flanks of this post.

In some cases, open posts were originally intended for enclosure within a stockade. Fort Laramie, one of three military posts established to protect the Oregon Trail during the continued dispute with Britain over Oregon Country in the late-1840s, was to be protected by "a wall or picket stockade," but no wall was ever built. There seems to have been a very strong lobby against the construction of fortified defense works in the years immediately after the Civil War. Following his inspection of the newly built Fort Phil Kearney in August 1866, General William B. Hazen criticized the building of a stockade for a post that was garrisoned by 150 men. While he praised the good design and construction of the fort, he stated clearly his view that "stockades were not essential" as they led to inferior building work within the fortifications. Additionally, according to a report published in 1870 by Assistant Surgeon

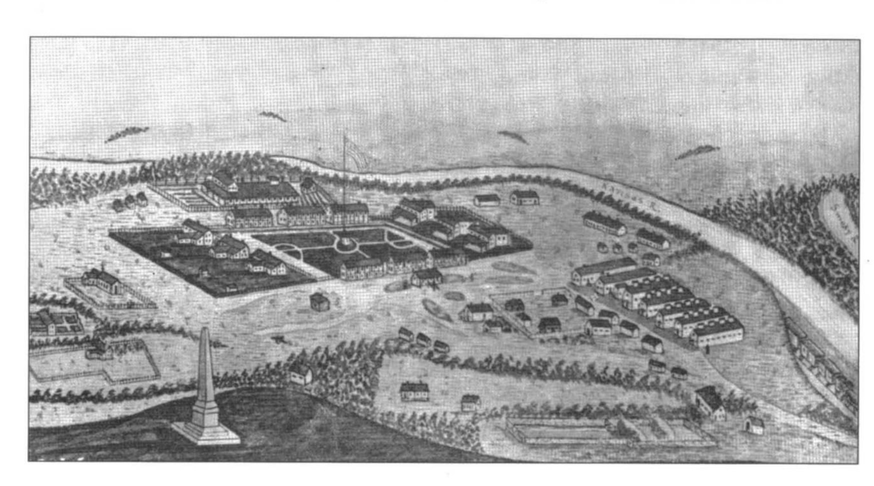
John S. Billings, heavy wooden stockades were ill advised at military posts because they tended "to obstruct ventilation and demoralize the troops."

Stone-built forts

Sensibly, the architects of the Plains forts utilized whatever building materials were available. This resulted in a number of posts being constructed in part from stone. On a site originally purchased from Indians for $260 in 1805, Fort Snelling overlooked the junction of the Mississippi and Minnesota rivers, and was built from 10,000 cubic yards of Platville limestone quarried from the edge of the bluff on which it was situated. Named for its first commander, Colonel Josiah Snelling, this post contained four stone towers that linked the walls surrounding its diamond-shaped compound. The northern and southern towers were hexagonal and pentagonal respectively, while the eastern and western ones were rounded.

Established in 1853 on the Smoky Hill Trail, Fort Riley was originally named Camp Center because of its location near the geographical center of the United States. Construction of permanent buildings on the site began in 1855 under the immediate direction of Captain Edmund A. Ogden, of the Quartermaster's Department. The new post was named for Major General Bennet C. Riley, commander of the first US military escort along the Santa Fe Trail, who died on July 8, 1853. Using a combined civilian and soldier work force, Ogden had supervised the construction of the wooden-built officers' quarters, barracks, hospital, and storehouses by the end of that year.

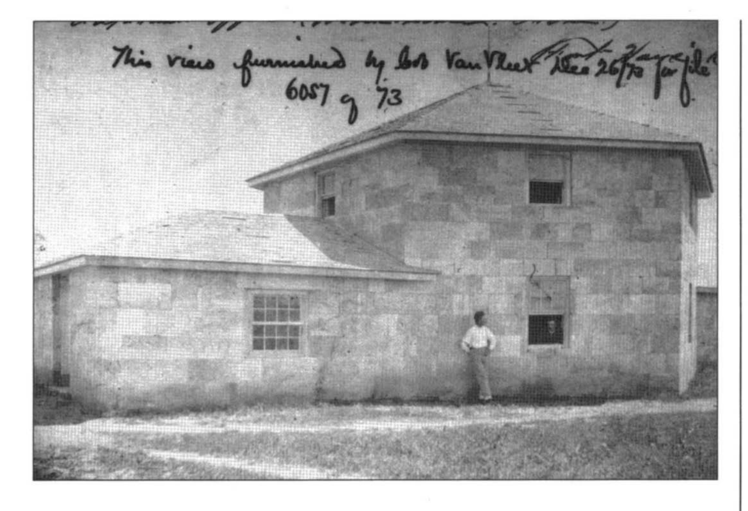
With the threat of Indian hostilities in 1855, Fort Riley became a cavalry post and its boundaries, marked by mere wooden stakes, were expanded to encompass a phenomenal 23,500 acres. With local timber supplies limited, all the new buildings were constructed from the "exceedingly fine-grained magnesian [sic] limestone" found in great abundance along the nearby bluffs. In 1869, General John Schofield, commander of the Department of the Missouri, converted the post into a training school for light artillery. During the following year a letter in the *Topeka Record*, a Kansas newspaper, described the buildings as being of "the most substantial character" consisting of "six double houses for officers' quarters, six barracks, a large post hospital, chaplain's quarters, a very nice chapel enclosed by a neat fence, post trader's storerooms, quartermaster's and commissary's storerooms, five stables, each of which has room for one hundred horses, a large mess house, workshops for all the various artisans required at the post, and some fifteen or twenty small houses for laundresses' quarters." Regarding the layout of the post, the letter stated: "The quarters of the officers and men are arranged, as usual at military posts, on the four sides of a square, forming the parade ground, in this case, the officers' being on the north and south sides, and the men being on the east and west."



This view of stone-built Fort Riley, Kansas, was drawn in 1878 by bandsman L. Ledue, 16th Infantry. The Ogden Monument obelisk, dedicated to Captain Edmund A. Ogden, who supervised the construction of the original wooden-built Fort Riley, is in the left foreground. (KSHS)

Following an abortive Kiowa attack on Fort Larned in Kansas on July 17, 1864 during which 172 Army horses were captured, an Army inspector recommended the construction of a stone blockhouse at the fort. Two years later, a new complex of nine sandstone structures was begun. This included officers' quarters, a quartermaster storehouse, and enlisted men's barracks. The stone for these buildings was quarried at sites nearby, and the remains of one, near Pawnee Fork, are still visible today.

Founded in 1866, also to guard the Smoky Hill Trail, many of the buildings at Fort Wallace in Kansas were constructed (under the initial supervision of First Lieutenant A.E. Bates, 2nd Cavalry) from limestone hauled from quarries about three miles to the southwest. Lumber was brought from the Republican River approximately 100 miles to the north.



The limestone blockhouse was the only defensive structure at Fort Hays in Kansas. Originally constructed with loopholes in the walls, it was designed to serve as a place of refuge when under attack. The building served as an office for the commanding officer, and provided quarters and office for the post adjutant, when this photograph was taken in December 1873. (KSHS)

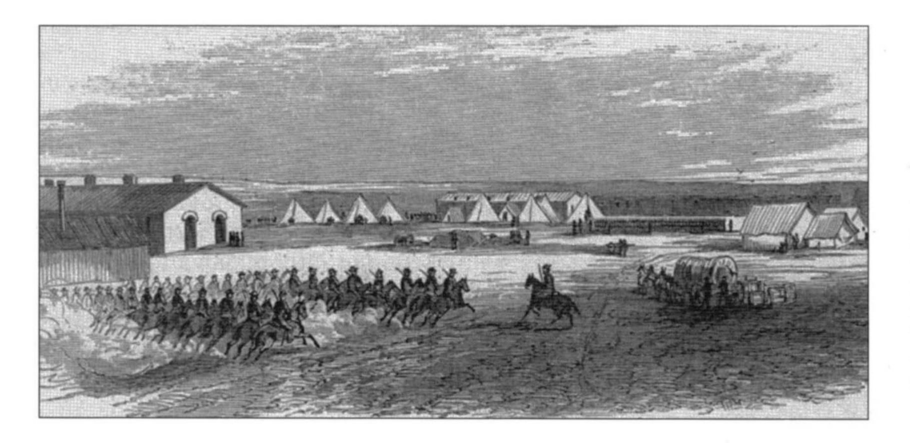


Adobe and brick-built forts

Few military forts on the Northern and Central Plains were built entirely from abobe (a sun-dried brick made from clay and sand mixed with water, and bound with straw or wool.) However, certain structures within some posts were made from this material. Built on the Oregon Trail in Wyoming by Pierre Chouteau & Co. in 1841, the trading post known as Fort John was originally a log structure, but was converted into an adobe-walled post when purchased by the US Army, and renamed Fort Laramie, in 1849. Parts of interior wooden buildings, such as the sutler's store, retained some adobe walls throughout the entire period of the Indian Wars.

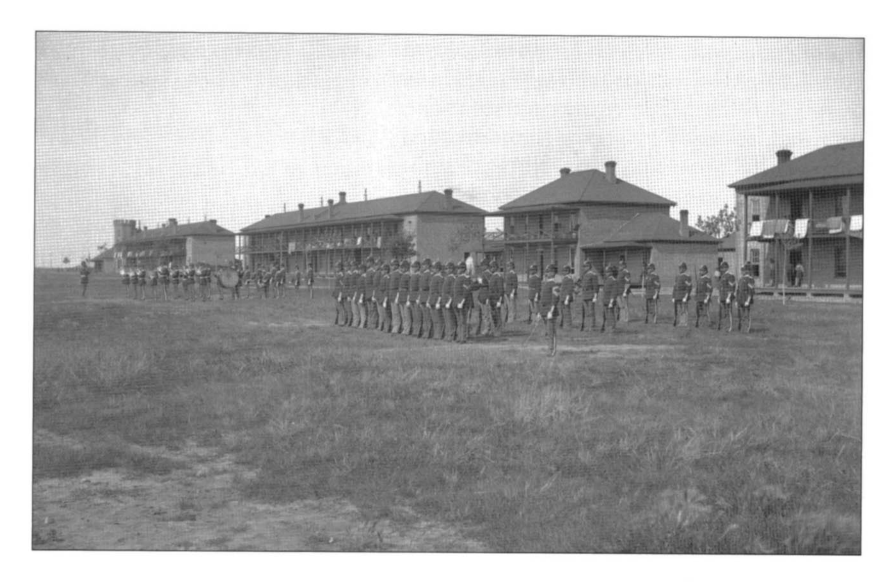
Established approximately midway along the Santa Fe Trail in Kansas during 1860, Fort Larned was originally built from sod and adobe, which provided inadequate protection from the environment and deteriorated rapidly. In June 1864, Major T. L. McKenny reported:

> "The huts are built of adobe, of a very inferior quality, the sod being sandy, and they are covered by little crooked poles, with dirt and grass thrown on the same, and I do assure you the sight presented in the huts occupied for quartermaster and commissary stores was awful. The water had been streaming down amongst the corn, flour, beans, and everything else, and by this rain alone over 100 sacks of flour were ruined; besides, I saw over 1,000 bushels of corn ... which was ruined."



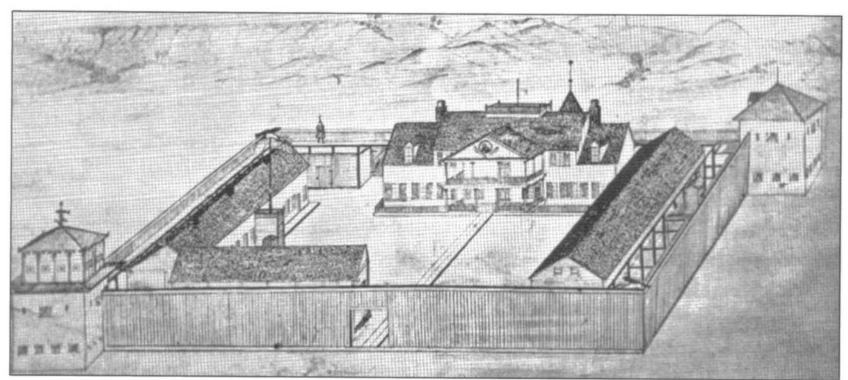
This engraving of Fort Wallace, Kansas was published in *Harper's Weekly* on July 27, 1867, and depicts the post at the height of the Indian troubles during June of that year. The mounted troops seen drilling in the foreground are probably part of the 7th Cavalry, who arrived as reinforcements that month. (ASKB)

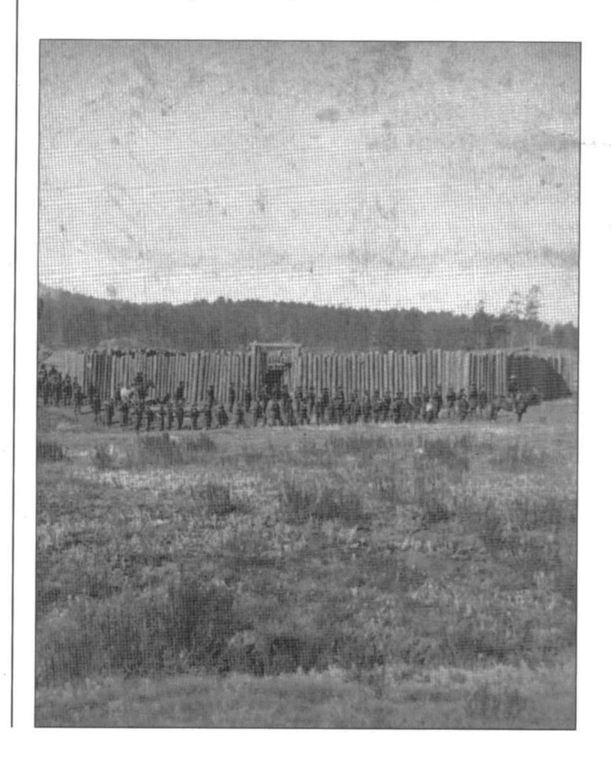
Built in Montana Territory during 1879, Fort Assinniboine stood 38 miles from the Canadian border. It was a large, open fort designed to house about 500 soldiers. Photographed sometime after 1881, a company of infantry and band attend dress parade on the fort's huge parade ground. (DPL, WHC)



BELOW RIGHT A drawing of Fort Union, produced by a soldier of General Alfred Sully's command during the Sioux campaign in 1864. Note the interior wooden framework to support the stockade, which was not set in the ground. (SHSND, A3000)

BELOW Built by gold prospectors at French Creek in the Black Hills during 1874, Fort Defiance (also known as "Gordon Stockade") was occupied for a short period by the US Army. Note that the outer gate is open to reveal an inner gateway, which was typical of earlier trading posts. These are no signs of the 6ft-square bastions purported to be protruding from each corner of the 80ft-square fort. (DPL, WHC)





During the Indian War of 1864, an adobe fortification, named Fort Mitchell, was hastily erected near Fort Laramie by Captain Jacob S. Shuman, 11th Ohio Volunteer Cavalry. This rough, quadrangular enclosure of about 100 by 180ft was surrounded by loophole adobe walls, with a sentry tower at one corner.

One of three forts built to guard the Bozeman Trail in 1866, Fort C. F. Smith was eventually protected by high adobe walls. Although most of the buildings at Fort Buford in North Dakota were built from cottonwood, the barracks were constructed from adobe. In 1870, Fort Stevenson in North Dakota was described as "a parallelogram with neat adobe buildings, a single story in height."

A rectangular-shaped post, built in 1879, Fort Assinniboine in Montana eventually boasted 104 mostly brick buildings constructed over a four-year period between 1879 and 1882. L. K. Devlin was selected to undertake construction, with the bricks being manufactured on the spot, by Colonel C. S. Broadwater. Much of the work at this fort was done by the troops themselves. Construction progressed so rapidly that the Indians claimed that the Fort Assinniboine "rose out of the ground."

The principal elements of defense

Stockades, walls, and sally-ports

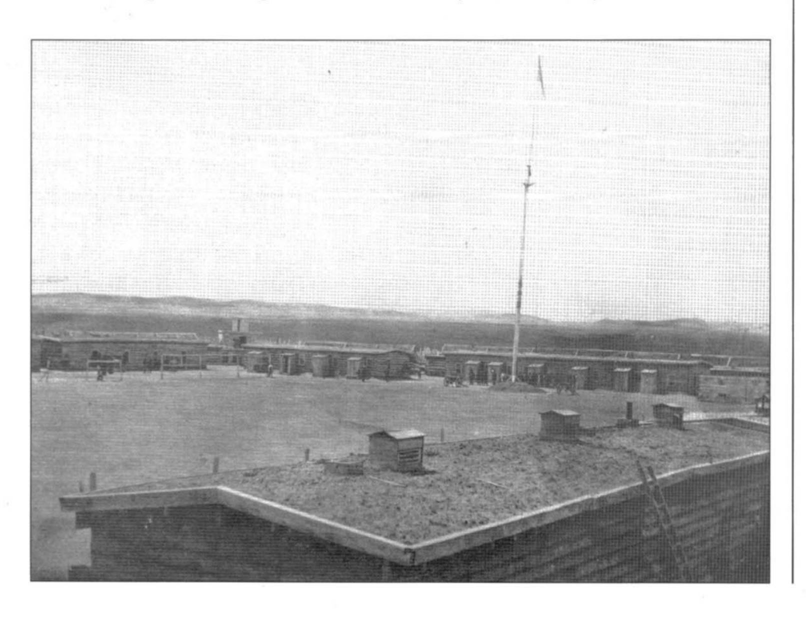
The outer defense works of frontier forts were built from a variety of materials and in a variety of styles, depending on the availability of the former. The fur-trade forts built during the 1820s and 1830s were usually defended by high wooden stockades set into the ground. An exception to this was Fort Union, where 1ft-square and 20ft-high cottonwood posts were supported at the base by a stone foundation. Inevitably, this method of construction could not withstand the fierce Dakota winds. Indeed, during the fall of 1833 a strong wind knocked down two sides of the fort. To prevent this happening again, Kenneth McKenzie had substantial reinforcements built inside the walls, which consisted of an 8ft-wide wooden framework supported by cross braces. According to Edwin T. Denig, who visited the fort in 1843, "A balcony is built on the top of this, having the summit of the 'X' for its basis, and is formed of sawed plank nailed to cross beams from one brace to another. This balcony affords a pleasant walk all round the inside of the fort, with in five feet of the top of the pickets; from here also is a good view of the surrounding neighborhood, and it is well calculated for a place of defense. It is a favorite place from which to shoot Wolves after night fall, and for standing guard in time of danger."

To resist "the attack of musketry," Mahan recommended that all military fort walls be a minimum of 12in. thick, although this does not seem to have always been adhered to. Although never built due to a lack of local timber, and high costs involved in construction, the defenses proposed for Fort Laramie in Wyoming Territory were described in a letter written by Lieutenant Daniel P. Woodbury, Corps of Engineers, in 1851:

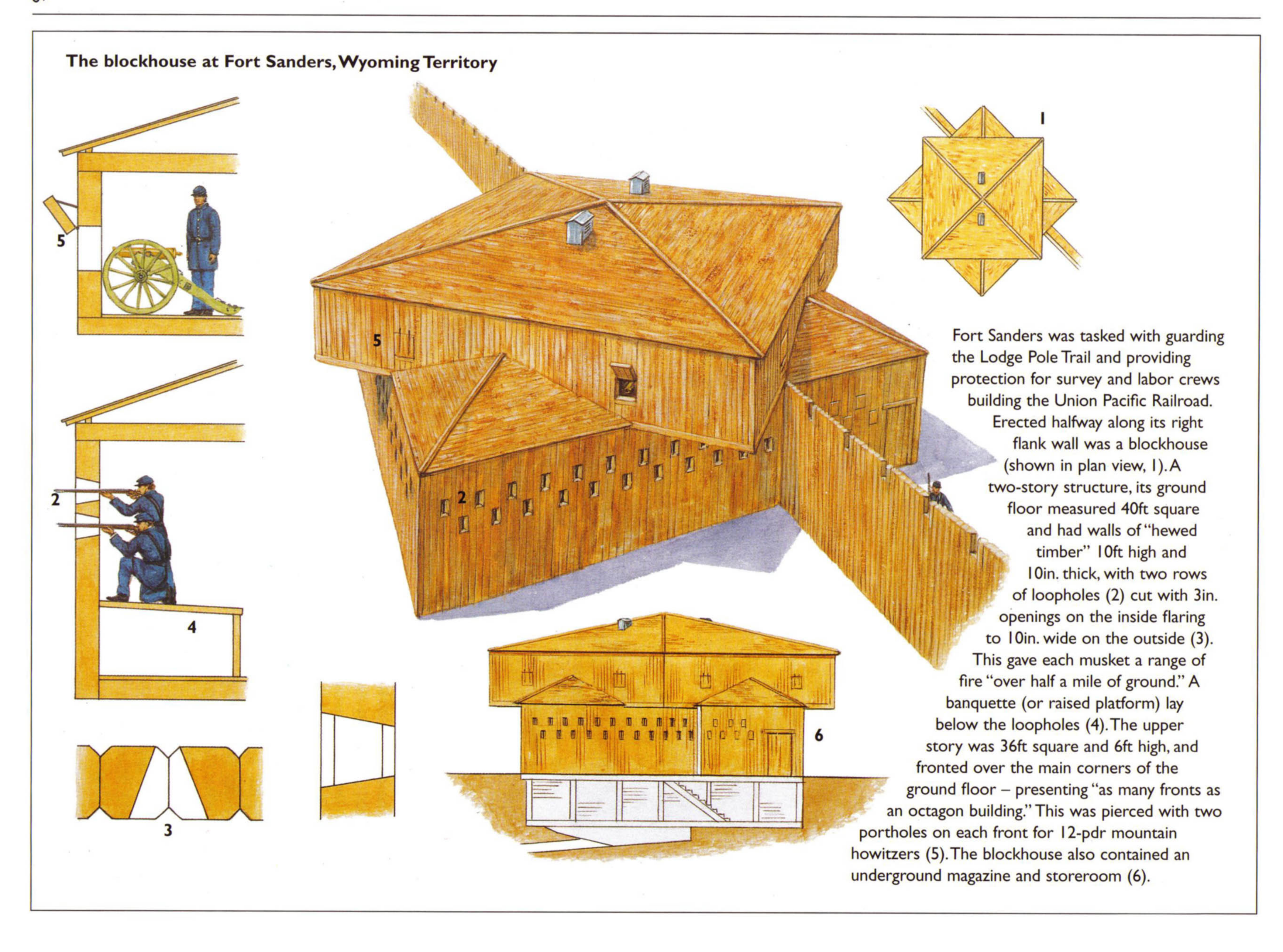
> "The enclosure may be made by a fence 9 feet high or by a rubble wall of the same height laid in mortar, at the discretion of the commanding officer. If a fence, the posts should be about 10 feet apart, average 12 inches in diameter and enter four feet into the ground. The boards should be nailed on upright, close together, to three horizontal ribbons, in pieces 4 inches wide, 1.5 inch thick, and pointed at the top. If a wall [,] the average thickness need not exceed 18 inches."

Built by gold prospectors in the Black Hills during 1874, Fort Defiance, also known as the "Gordon Stockade," was described as follows:

> "A trench was dug around the lines of the stockade three feet deep and heavy pine logs thirteen feet long were stood upright in the trench, being extended above the ground and three feet below the surface, forming

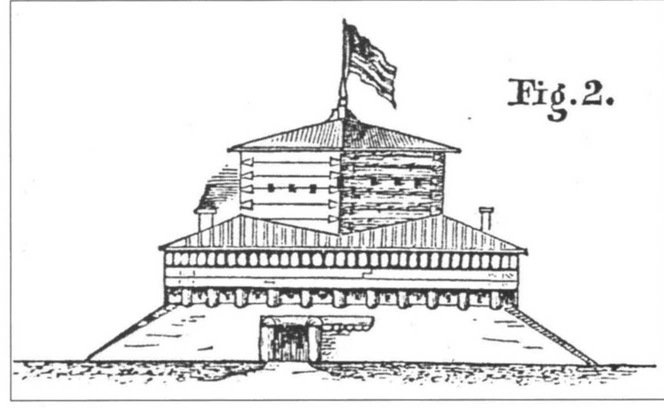


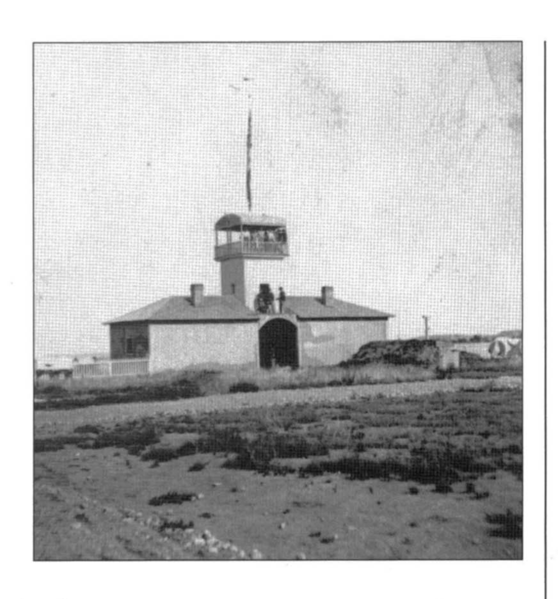
Based on Mahan's course in field fortification taught at West Point, the roofs of barracks buildings at Fort Rice, in Dakota Territory, were covered with earth to guard against being set on fire during Indian attack. Also note the height of the flagpole, so that its flag could be seen for many miles. (SHSND, C1628)

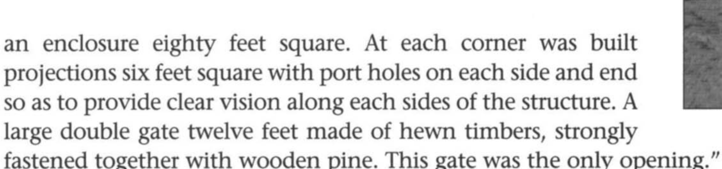


The blockhouse at Fort Sanders, Wyoming Territory

Fort Sanders was tasked with guarding the Lodge Pole Trail and providing protection for survey and labor crews building the Union Pacific Railroad. Erected halfway along its right flank wall was a blockhouse (shown in plan view, 1). A two-story structure, its ground floor measured 40ft square and had walls of "hewed timber" 10ft high and 10in. thick, with two rows of loopholes (2) cut with 3in. openings on the inside flaring to 10in. wide on the outside (3). This gave each musket a range of fire "over half a mile of ground." A banquette (or raised platform) lay below the loopholes (4). The upper story was 36ft square and 6ft high, and fronted over the main corners of the ground floor – presenting "as many fronts as an octagon building." This was pierced with two portholes on each front for 12-pdr mountain howitzers (5). The blockhouse also contained an underground magazine and storeroom (6).






an enclosure eighty feet square. At each corner was built projections six feet square with port holes on each side and end so as to provide clear vision along each sides of the structure. A large double gate twelve feet made of hewn timbers, strongly fastened together with wooden pine. This gate was the only opening."

ABOVE LEFT An illustration from Mahan's *Elementary Course in Military Engineering*, published in 1878, showing a blockhouse. Blockhouses similar to this plan were built at Fort Reno in Wyoming in 1867. (EN)

ABOVE RIGHT Fort Stevenson, in Dakota Territory, was built in 1867 to guard the emigrant route from Minnesota to the gold mines of Montana and Idaho. Because of the friendly disposition of the nearby tribes, a stockade was never attached to its large sally-port, or fortified gate house. (SHSND, 0670-37)

Established on the right bank of the Missouri River in 1864, Fort Rice formed a quadrangle 289 yards by 182 yards, and was eventually protected by a 10ft-high stockade made of 2in.-thick oak planks. Those at Fort Sanders were described as "ten-inch walls of hewed timber." Fort Buford, Dakota Territory, which consisted of an area 333 yards by 200 yards, was originally enclosed on three sides by a 12ft-high wooden stockade.

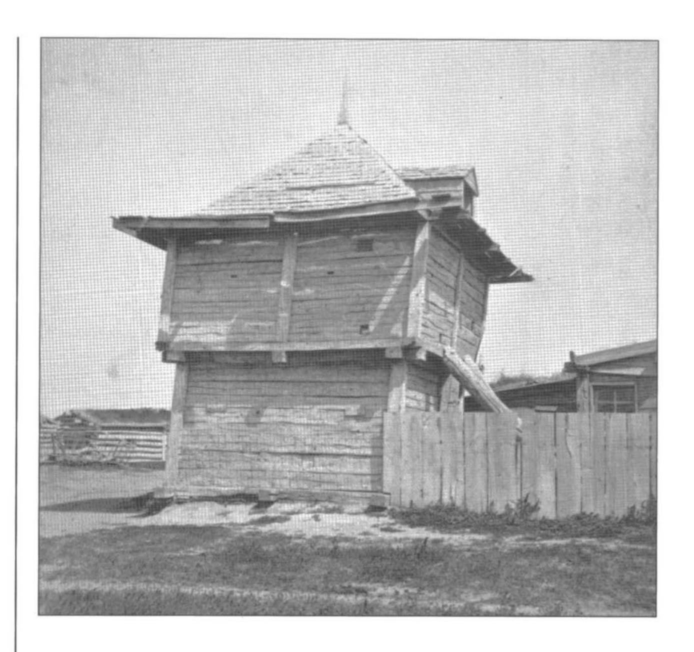
Heavily fortified main gates, or sally-ports, were rarely found in frontier military posts. Surviving plans for Fort Mitchell, built on the Oregon Trail in Nebraska Territory during 1864, reveal that this post had a "stockade with sally-port." Built among friendly Mandans, Gros Ventres, and Ree Indians in Dakota Territory during 1867, Fort Stevenson did not require a palisade for protection, although this decision was made after a large sally-port had been built.

Blockhouses, bastions, and towers

Part of the defense of some Plains open forts, and most stockade forts, was the blockhouse, or bastion. Blockhouses had been used in frontier communities as protection against Native American attacks since colonial days. They were built from timber or stone in New England, and from logs banked with earth in the South and West. Basing the blockhouse on the principle of the medieval castle keep, Mahan described this important building as a "place of retreat, into which the troops may retire in safety after a vigorous defense of the main work." The presence of such a strongpoint, he maintained, removed the garrison's fears of the consequences of a successful enemy attack, and inspired the defenders with the "confidence to hold out to the last moment."

The three-story, round, stone tower built at the western end of Fort Snelling *c.*1820 is the oldest standing building in Minnesota today. Designed as a site of last-ditch defense, the musket loopholes on its first two floors also face inside the walls of the fort. The third story mounted a 12-pdr field gun during the Winnebago Indian crisis of 1827. A half-moon battery, also built from stone, guarded the river below, while the hexagonal and pentagonal towers at the north and south corners also housed cannon at various times during the illustrious history of the fort.

The two bastions built at Fort Union *c.*1835 to replace earlier wooden blockhouses were described as being "built entirely out of stone, and measuring 24 feet square, over 30 feet high, and the walls three feet thick; this is whitewashed. Around the top of the second stories [at the roof line] are balconies



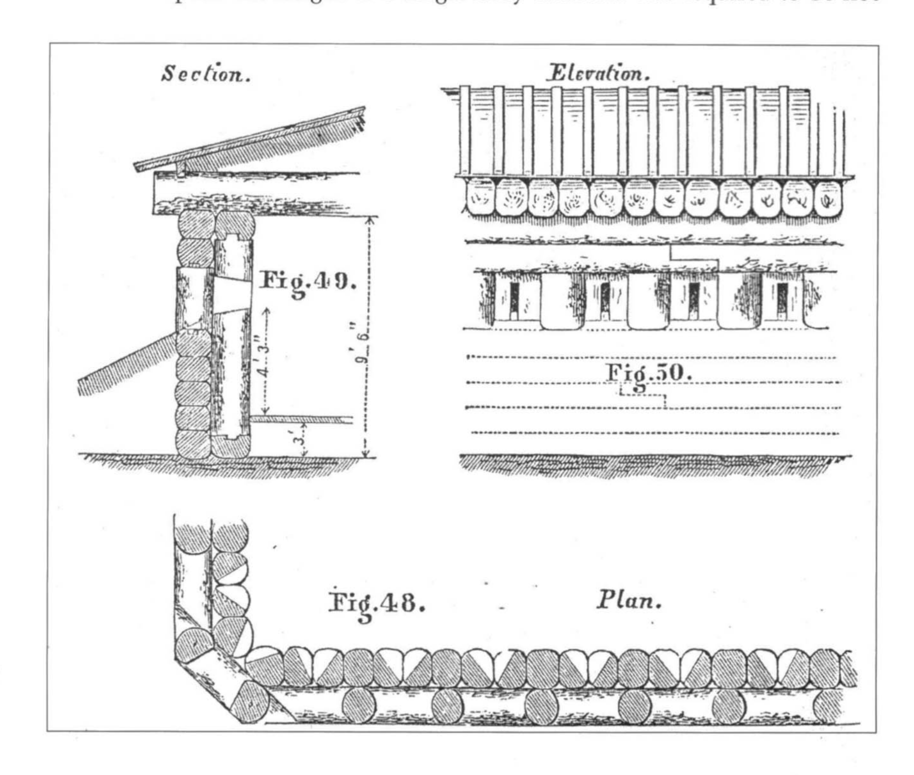
This blockhouse at Fort Berthold has the upper story protruding over the ground floor, as directed by Mahan. Photographed during the last days of the post, the rifle loopholes have been boarded over. (SHSND, 0088-33-01)

with railings, which serve for observations, and from the tops of the roofs are two flag-staffs 25 feet high, on which wave the proud Eagle of America. Two weathercocks, one a Buffalo bull, the other an Eagle complete the outsides." The northeast bastion was armed with "one three-pounder iron cannon and one brass swivel ... together with a dozen muskets." The southwest one contained only "one small swivel" gun in 1843.

According to Mahan, the military blockhouse could be "formed of earth," or might simply consist of "a space enclosed by a defensive stoccade [sic], or palisading." The two bastions raised at Fort Sedgewick, in northeastern Colorado, were built from sod, or turf, in 1864. However, most blockhouses constructed on the frontier were of wood. Made of heavy timber, squared to "a touching surface" on either two or four sides, the pieces that formed the walls of the structure could be laid horizontally like a log cabin, or placed vertically, side by side, and connected at the top by a cap-sill. In either case, the structure needed to be about 4ft higher than the main stockade, to prevent attackers from gaining "a plunging fire" from the wall gallery. It was recommended that the roof of the blockhouse should be protected from being set on fire by laying logs side by side and covering them with earth to a depth of 3ft.

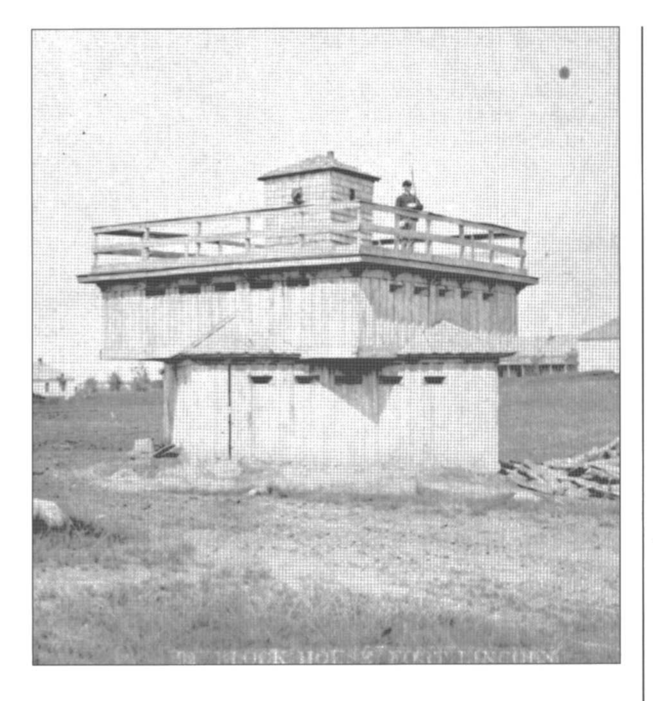
In a system that Mahan called the "American Blockhouse," the walls were double thickness, with an outer layer of logs laid horizontally, and an inner layer stood vertically. This method of construction was very effective against cannon fire during the Civil War, but was seldom used on the frontier.

The ground plan of blockhouses and bastions could be square, rectangular, or cross-shaped. The height of a single-story structure was required to be not



Drawings showing Mahan's "American Blockhouse" system, which consisted of an outer layer of logs laid horizontally, and an inner layer stood vertically. (EN)

less than 9ft from ground level, to allow "ample room for loading the musket." This meant that the timber used needed to be 12ft in length, in order to be set firmly in the ground. The recommended width for a blockhouse was 20ft, which in theory allowed for a 6.5ft-long "camp bed of boards" on each side, with a 7ft gap at the center. The camp bed also served as a banquette, or raised platform, and was placed 4ft 3in. below the loophole, with a slight inward slope of about 8in. For safety reasons, magazines and storerooms were usually placed under the ground floor of the blockhouse. Where a cannon was to be installed in the blockhouse, a space 18ft in width was required for the service of the piece.

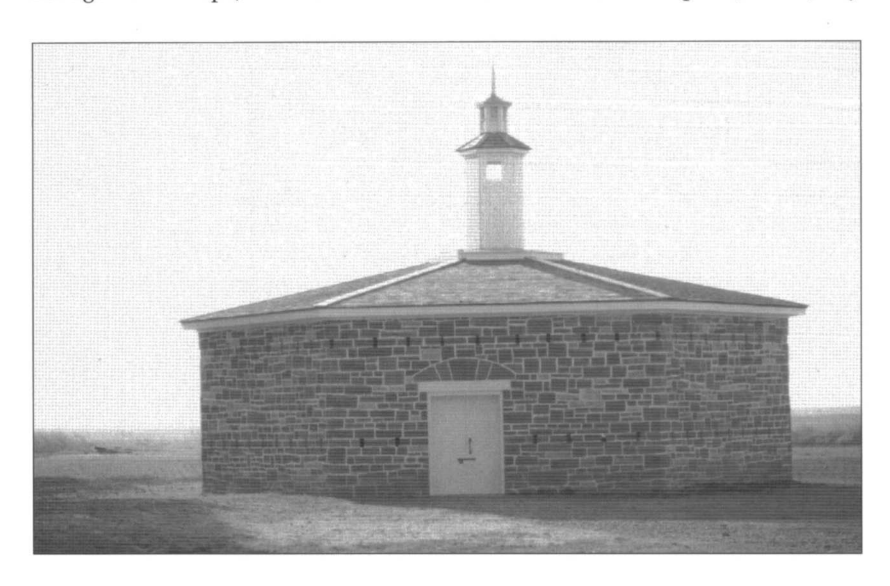


One of three blockhouses built at Fort McKeen (later re-named Fort Abraham Lincoln) in Dakota Territory during 1872, to guard the Northern Pacific Railroad crossing over the Missouri River. (SHSND, A5822)

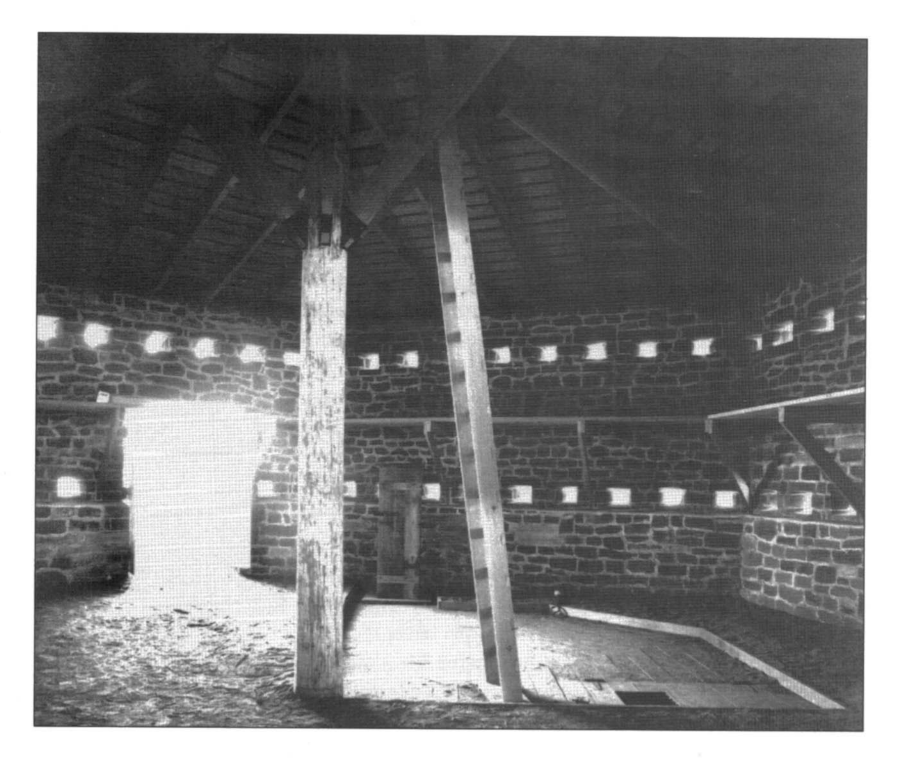
Blockhouses and bastions with two stories were designed to have the corners or the sides of the upper floor projecting over the sides of the lower floor. According to Mahan, either of these methods was sufficient, but the former was preferable as it afforded rifle fire in the direction of its angles, and was particularly effective against Indian attack. The overlap was to be no greater than 12in., which permitted "logs, etc., being rolled over on the enemy." The principle of medieval castle machicolations was a common feature in frontier blockhouses. Architect Lieutenant Woodbury planned to incorporate "machicouli" in the overlapping upper floor of the proposed blockhouse at Fort Laramie in 1851. These openings were to serve a similar purpose as rifle ports, through which the defenders could fire vertically down on any Indians who attempted to gather under the overhang in order to set fire to the defense works.

Two- and three-storied blockhouses were often designed to contain cannon on the upper floor. The upper floor of the proposed blockhouses at Fort Laramie were to be "divided into two rooms, one 18 feet long and the other 19¾ feet." Each room was to have an artillery piece on a casement carriage. The southeast blockhouse would have one cannon to fire to the south, another to fire to the east, and the northwest blockhouse would have cannon to fire to the north and west.

The stone blockhouse completed at Fort Larned in February 1865 was hexagonal in shape, and measured 22ft on each side. Made of poles, brush, hay



A reconstruction of the hexagonal, brick-built blockhouse erected in response to a Kiowa attack on Fort Larned in 1864. (FLNHS)



The interior of the blockhouse at Fort Larned, showing the two tiers of rifle loopholes. An underground passageway from a small cellar under the floor led to a nearby well. (FLNHS)

and sod, the original roof was supported by the sidewalls plus a large wooden post in the center. This was replaced in 1867 by a wood-shingled roof, complete with a small watchtower. The two-storied limestone blockhouse erected at Fort Hays in Kansas during the same period was also hexagonal, with two single-storied, square extensions either side. That built at the short-lived Fort James in Dakota Territory in 1866 consisted of a stone ground floor, and an upper story made of "hewn logs reversed."

Some of the smaller forts on the Plains were composed of nothing more than a blockhouse. For example, Fort Lookout in Republican county, Kansas, which guarded the military road from Fort Riley to Fort Kearney, consisted solely of a sturdy two-story log blockhouse. This performed regular duty until abandoned in 1868. Fort Zarah, established near the Santa Fe Trail to guard the crossing at Walnut Creek, comprised two small blockhouses either side of the trail.

Rifle loopholes and cannon embrasures

Loopholes for rifles were usually placed in both blockhouses and bastions about 3ft apart, and 6ft above ground level, in palisade and blockhouse walls. In the latter, they were included in all four walls to cover the interior of the enclosure as well. This served two purposes. It afforded the defenders additional protection should an enemy get over the wall and inside the stockade. It also made the blockhouse a stronghold in the event that the wall or stockade was not built. Loopholes facing the fort interior were usually closed up with weather boarding nailed on the outside, which could be kicked off by the defenders in cases of emergency.

For walls 12ft thick, the interior dimensions of loopholes were 12in. high and 8in. wide. The exterior width was 2.5in. The exterior height depended on the points to be defended. Vents were placed above each loophole to prevent the build-up of powder smoke when troops were firing rifles and cannon from within the blockhouse.

Where cannons were installed in the upper floor of two-storied blockhouses, such as at Fort Sanders, an embrasure was pierced through the wall. This was an internally splayed recess, the cheeks of which were faced with logs, while

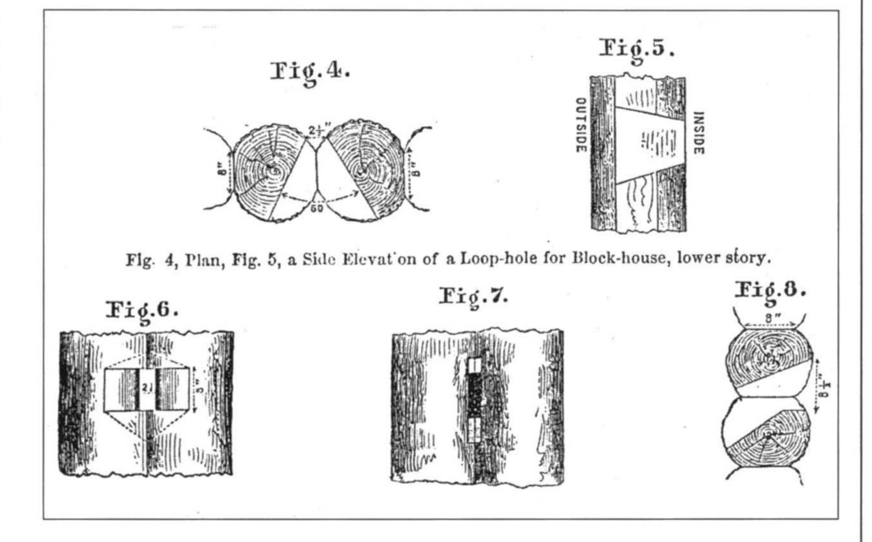
the mouth was secured by a musket-proof shutter, which sometimes had a loophole in it. Embrasures were usually placed below the level of the loopholes, which allowed the latter to be used whenever necessary.

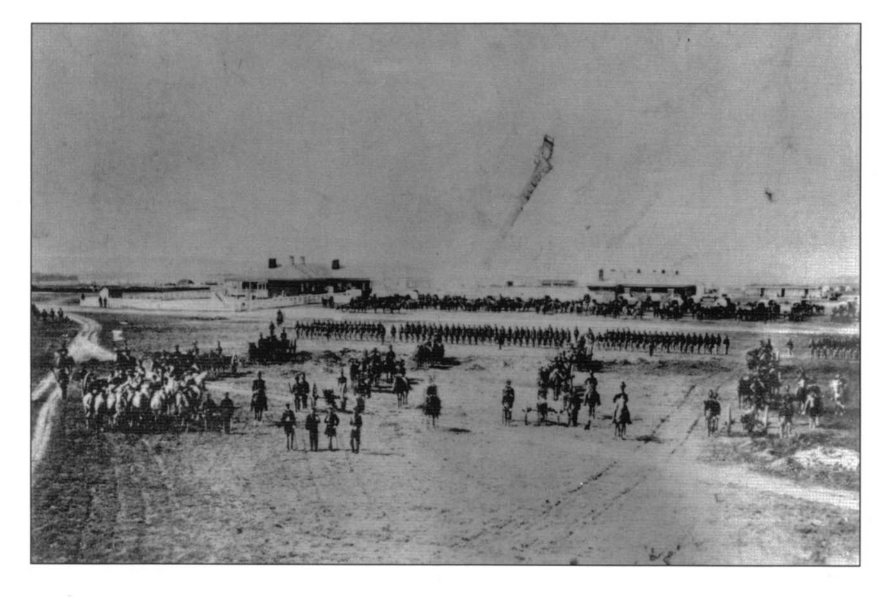
Breastworks, ditches, and moats

Occasionally, emergency measures were necessary in order to protect those forts without a stockade. Following attacks during the Dakota War of 1862, Colonel Henry H. Sibley reported that earthworks had been erected at Fort Ridgely for "the security of that post." These were replaced by a stockade soon after. Threatened by Kiowa raiding parties during the summer of 1864, the garrison at Fort Larned in Kansas threw up shallow defenses. On June 15, 1864 Major T. L. McKenny reported that the post was "only a fort in name, as there are no defenses. An attempt has been made to throw up breast-works around it, or one-third of it, as the Pawnee Creek, on which it is built, defends the other two-thirds. This breast-work averages about 20 inches high, with the ditch on the inner side."

Permanent earthen breastworks, 12ft high, surrounded Fort Wadsworth, later known as Fort Sisseton, in Dakota Territory in 1875. Surrounding a site measuring nine and a half acres, this had a 6ft-deep ditch on the outside, a sentry box atop three corners, and a cannon at all four corners. Fort Ransom, a 200-man post built to protect the Dakota–Montana Trail in 1867, was surrounded by an 8ft-deep dry moat.

Drawings from Mahan's works showing loopholes for the lower story of a blockhouse. (EN)





Fort Harker, in Kansas, was under construction when this photograph by Alexander Gardner was taken in 1867. The 38th Infantry, assembled towards the rear of the parade ground, built much of this post. (KSHS)

Life in a frontier fort

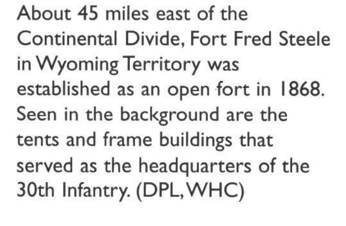
Garrison life on the Northern and Central Plains was based on two main elements – routine and Army regulations. Although many men joined the army in the hope of finding excitement and adventure, most of their enlistment was spent at the post, with only infrequent time spent scouting and campaigning against Indians. Their daily routine was filled with drill and guard duty, fatigue details, construction and maintenance of post facilities, feeding and grooming cavalry mounts, and target practice.

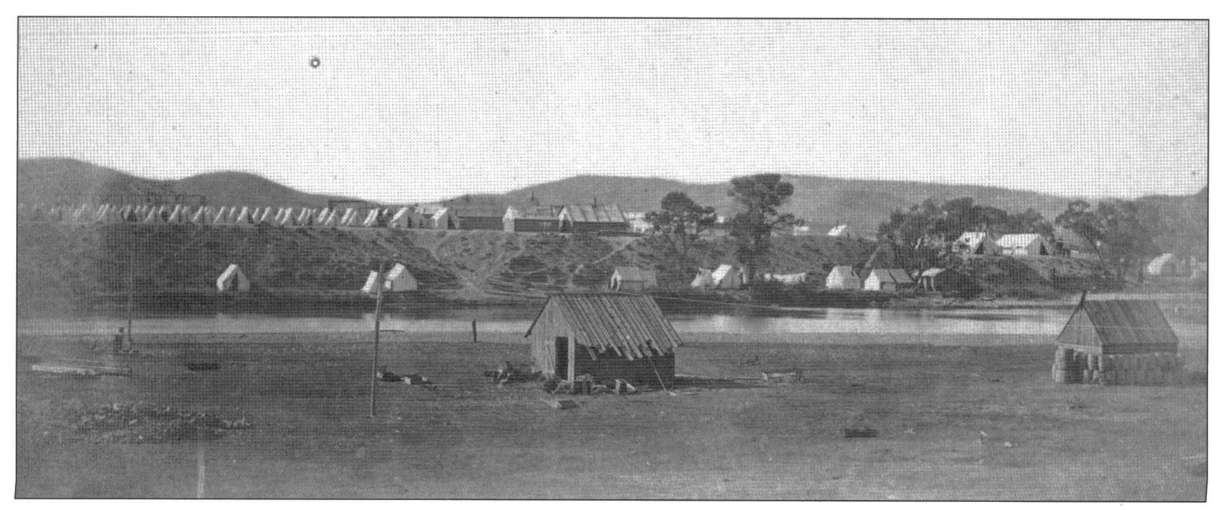
A typical day revolved around the trumpet calls or drum beats listed below. The routine varied from post to post, but it was the basis for frontier army life – even during the summer months when most of the garrison was on detached duty.

6.00 a.m. reveille, assembly, and first roll call of troops
6.30 a.m. mess, or breakfast
7.30 a.m. fatigue call
8.00 a.m. sick call
9.00 a.m. assembly of guard detail
9.45 a.m. recall from fatigue details
10.00–11.30 a.m. various drills for artillery, cavalry, and infantry
12.00 noon mess
1.00 p.m. target practice drill
2.00 p.m. additional fatigue call
4.30 p.m. recall from fatigue duties
6.00 p.m. dress parade and roll call
6.30 p.m. mess
9.00 p.m. tattoo, assembly of troops, and last roll call
9.30 p.m. taps, lights out

Fatigue duties

The bane of a soldier's life was fatigue duty. Enlisted men spent more time wielding an axe or spade than they did shouldering a rifle. Rather than employ civilian labor, the Army preferred to use the soldiers for construction and maintenance work, for which they were eligible for extra pay at the rate of 20 cents per day after working more than 10 consecutive days as a laborer. Fort





About 45 miles east of the Continental Divide, Fort Fred Steele in Wyoming Territory was established as an open fort in 1868. Seen in the background are the tents and frame buildings that served as the headquarters of the 30th Infantry. (DPL, WHC)

Sanders in Dakota Territory was built entirely by the troops with the aid of half a dozen citizen carpenters and three stonemasons.

An enlisted man at Fort D.A. Russell, Dakota Territory, wrote on December 23, 1867 that his company had been "hard at work, assisting in building quarters for themselves, in fact, every man at the post has been so employed. The officers are still in tents and will scarcely get into their quarters before the month of February, a prospect not at all agreeable, as they so lived all last Winter, and are not at all anxious to repeat the experiment. The building was not commenced until late in the season, and instead of giving it out by contract, is being built by the quartermaster's department."

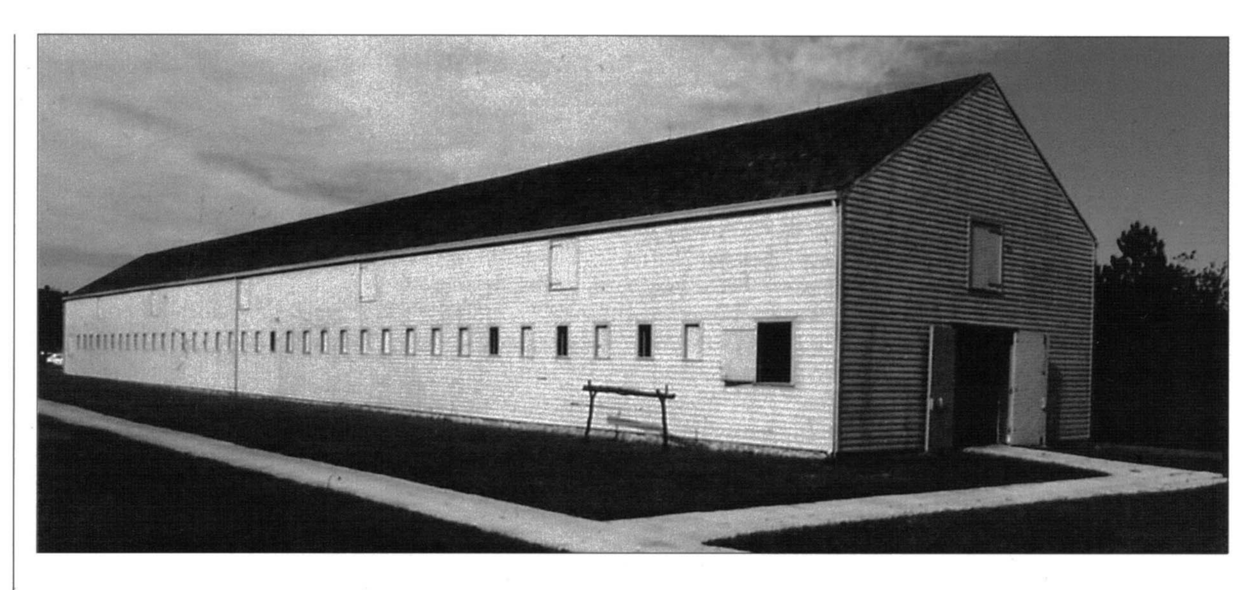
Earlier, in 1863, Captain Eugene Ware, 7th Iowa Cavalry, described building Fort McPherson, on the Oregon Trail in Nebraska Territory:

"We had only about seventy-five men that were really effective for hard work, but many of them were very skilful in the use of the ax [sic], and many knew how to handle tools ... we started up the canyon; six of our men had worked in the pineries, and were expert axmen. They went to work as three couples to fell the trees. Their axes were sharp, the weather stimulating, and they tumbled the trees rapidly. Other squads trimmed the branches; others with a crosscut saw worked in constant reliefs, cutting the logs the right length. Our quarters had been planned to be built of twenty-foot logs. These logs were about a foot in diameter. We had our pick. After getting down a lot of the logs, we organized squads with our team mules to snake them out of the canyon. The men made rapid work, and every night every man who had worked in the canyon got a good snifter from my barrel of 1849 whisky. We were racing against the weather, and I never saw men work with more activity. The main barracks for the men were designed as six square rooms, which made a long building one hundred twenty feet long by twenty feet wide on the outside. Among our number were those who had built log cabins, and knew how to 'carry up a corner,' as the expression was. So the logs were snaked down, and with assistance the men at the corners notched them up, and it was but a few days before the cabins seven feet high in the clear were ready for the roof ... In a little while we had the pole roof on, with the interstices filled with cedar boughs, and about ten inches of good hard clay tamped down; but we were still without doors and windows, although we had places for them sawed out in the log walls."

Some men became most unhappy about being used predominantly as a labor force to build forts. On February 5, 1872, a soldier wrote from Fort Sully, Dakota Territory:

"The Twenty-second U.S. Infantry has been stationed six years in the Indian country, and has built all the posts along the Missouri river, such as Fort Randall, Whetstone Agency, Brule Agency, Fort Thompson, Fort Sully, Big Cheyenne Agency, Ponke Agency, Fort Rice, Fort Stevenson and Fort Bertholet [sic]. Now, different companies of the same regiment had to go last fall up to the Yellowstone river with the surveying party, and it is understood that the whole regiment is to move this spring to the same place to build new forts. The enlisted men in the regiment long to see civilization again, and the many weary years of solitary prairie life, the many sufferings, the privations, and hard labor which the Twenty-second had to undergo gives it a claim to be transferred to the States where we can get something for our money, and enjoy the service of Uncle Sam."

A similar situation existed on the plains of Kansas. A correspondent of the *Boston Transcript*, who was possibly also a soldier, described living conditions in Fort Harker in January 1867:



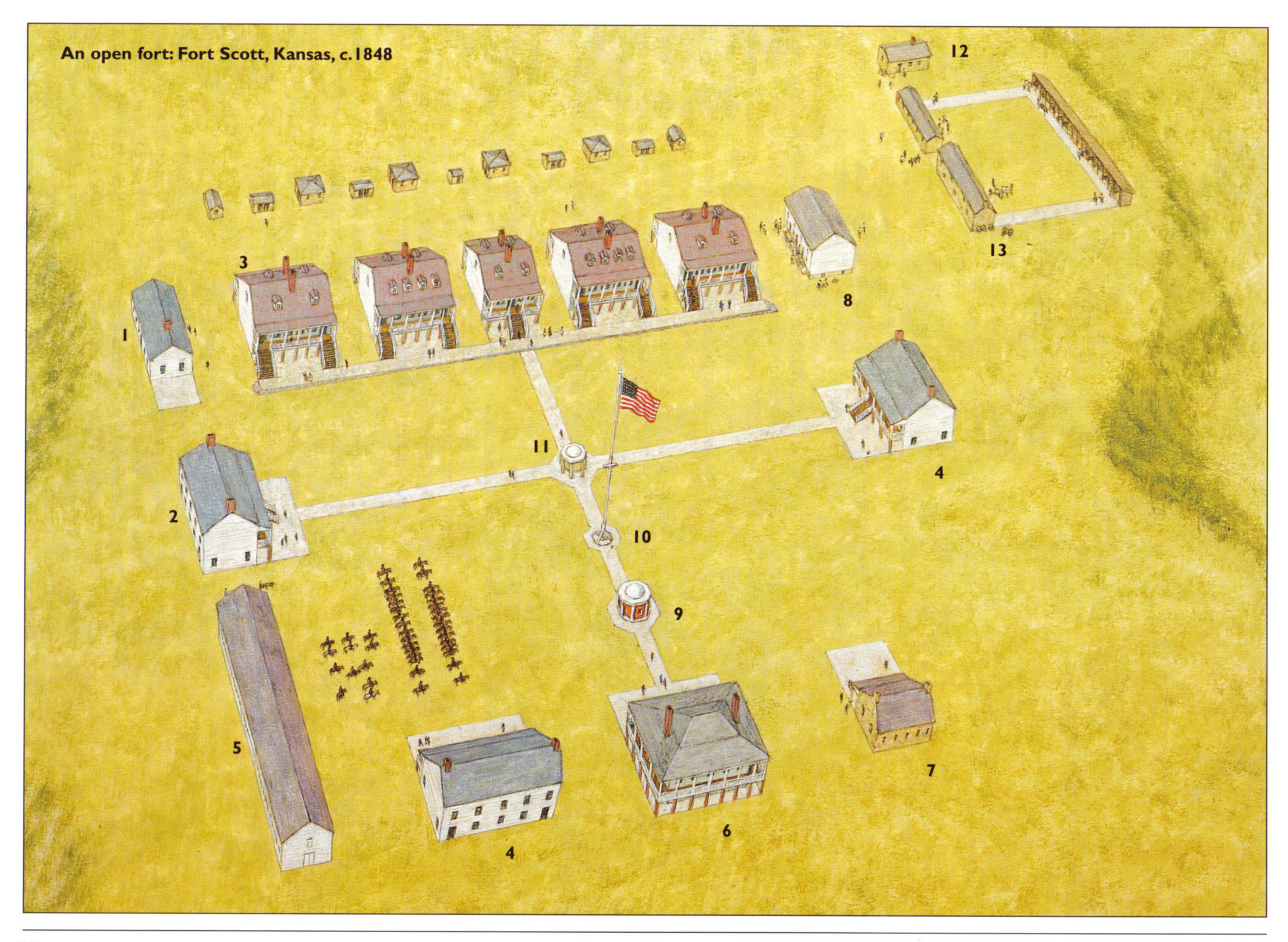
The reconstructed dragoon stables at Fort Scott in Kansas. The original building was designed to hold 80 horses. (FSNHS)

"There have been no drills here the past Winter, the soldiers being all occupied in building quarters. Isn't it a mistake on the part of the Government to require enlisted men to work as common laborers, with no opportunity to perfect themselves in drill? An officer cannot have proper discipline in his command under such circumstances. The men, too labor somehow under silent protest, desertions are more then frequent."

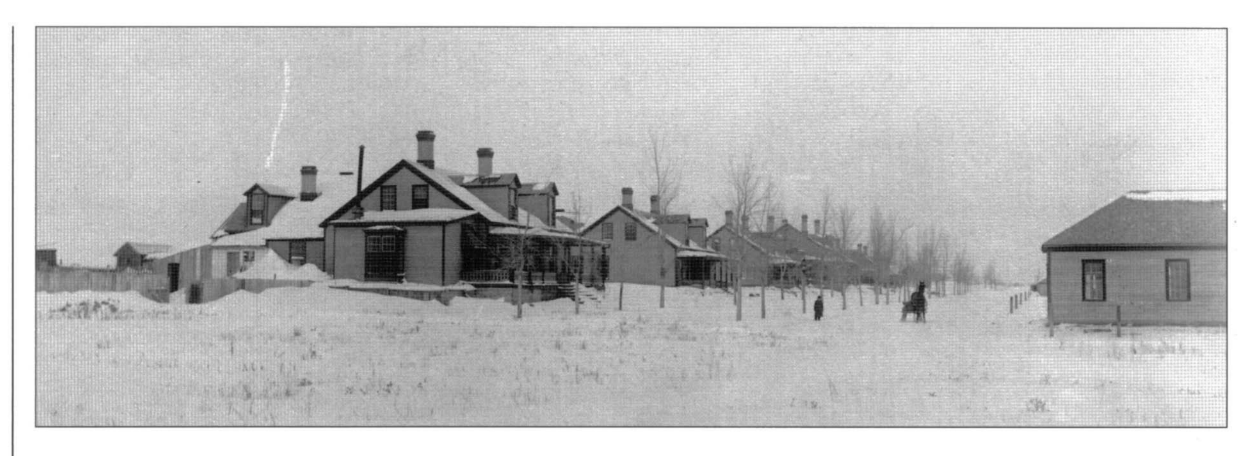
The officers and men generally had to "rough it" while more permanent quarters were being prepared. During a tour of inspection in 1879, General William Tecumseh Sherman stated: "When I got to Fort Larned there was a small garrison there, and I think about three or four companies, living in dug-outs, and one or two kinds of tents built up at the sides with sod, and a tent roof." On an earlier occasion (January 1867), a correspondent of the *Boston Transcript* described living conditions in Fort Harker, Kansas:

"Our own dwelling, twelve feet square, is made of rough logs, set upright and plastered with mud; the roof is a heterogeneous mass of mud, sticks, straw and boughs. The former, owing to its profound respect for the law of gravitation, would persist, at first, in falling in clods at all hours. It dropped

OPPOSITE **An open fort: Fort Scott, Kansas, c.1848**
Established on the Central Plains in 1842, Fort Scott was situated on the Military Road that guarded the "Permanent Indian Frontier", created following the relocation of the Native Americans to the west of the Mississippi River via the Indian Removal Act of 1830. The fort played a major role in the opening of the West as "Manifest Destiny" pushed settlement further westward across the Plains. A typical open post, Fort Scott was planned around a large parade ground, lined on all sides by officers' quarters, enlisted men's barracks, and stables. Most of the soldiers' quarters were wooden-frame structures built in the Greek-revival style, with high ceilings, walnut woodwork, elaborate porches, and fireplaces. Abandoned in 1853, the buildings at the post became the nucleus for the town of Fort Scott. Reactivated as a military facility during the Civil War, Fort Scott served as the headquarters of the "Army of the Frontier" and also as a place of refuge for displaced Indians. Although closed once again in 1865, the fort was re-activated from 1869 to 1873, when it served as the military headquarters during the construction of the railroads through southeast Kansas into Indian Territory. Among the fort's key buildings shown here are: the post headquarters (1); the Dragoon barracks (2) – the soldiers bunked on the upper or "principal story" and ate their meals in the "basement" or ground floor; officers' quarters (3) – these buildings had a third floor above the "principal story" to provide additional living space; infantry barracks (4); Dragoon stables (5) – these held 80 horses plus their tack and feed; hospital (6); guardhouse (7); quartermaster storehouse (8); powder magazine (9) – providing safe storage for explosives, powder, cartridges, fuses, and primers; flagstaff (10) – designed to be seen for many miles, this was over 100ft high; well canopy (11); post bakery (12); and blacksmith shop (13).



An open fort: Fort Scott, Kansas, c.1848



Built on the western bank of the Missouri River in Dakota Territory during 1872, Fort Abraham Lincoln was home for a battalion of the 7th Cavalry for three years prior to the battle of Little Bighorn. This snow-covered view of the seven detached officers' houses at the post illustrates the severity of army life during winter on the Northern Plains. (DPL, WHC)

upon our plates at dinner and into our mouth in dreams, till finally, a bright idea striking us, we stretched a piece of tent cloth above our bed and defied the mud. It snowed the night of our experiment, and a bushel or so of snow sifted into the tent cloth. Toward morning came a thaw. We were dreaming ourselves a victim of the Spanish Inquisition, and they were trying on us the torture of the shaven head and ice-cold drops of water. Just as we were about to renounce Protestantism in toto, we were awakened to a sense of the reality. The water was dripping from our cotton roof in quarts, and, as we wrung ourselves out, a few clods of mud fell with a loud thump, in the opposite corner, as if to remind us that in an uncivilised country man can never war successfully with the elements."

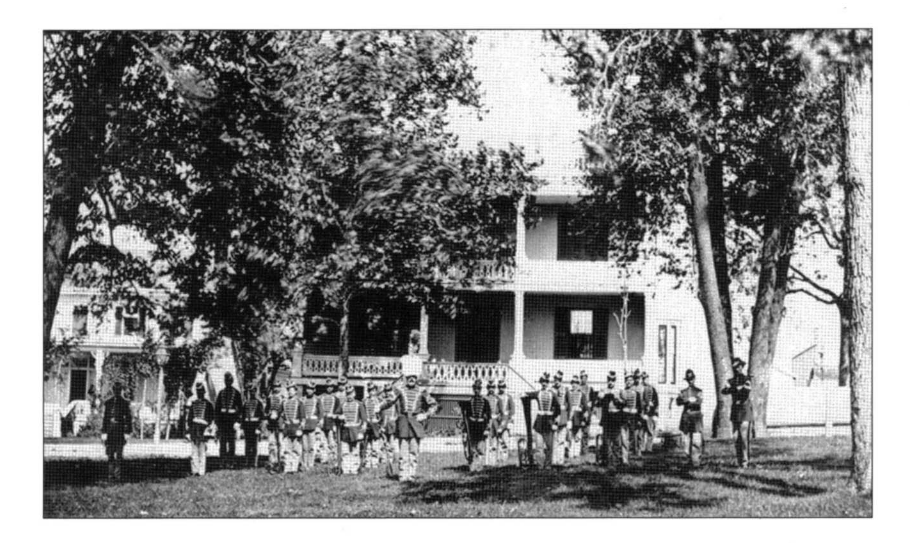
Many of the troops at Fort Wallace in Kansas were still living in temporary accommodation in March 1868, despite the fact that construction of this largely stone-built post had begun in 1866. A member of the garrison recalled:

> "The 'fort' is far from completion. The officers live in frame constructions, run up hastily from the ground, without foundation, and banked up tent fashion, around the bases to keep out the wind ... During the past night my head was kept in a state of refreshing coolness by the snow, which was sprinkled on me by the delicate hand of Dame Nature herself, through the interstices of the boards which form my dwelling."

Other fatigue duties for frontier troops included guard duty, gardening, latrine duty, bakery detail, hospital duty, chopping wood for stoves and carrying water for the cooks. They also performed kitchen duties, such as setting tables before meals, waiting on table, and washing dishes. Cavalry regiments had the additional responsibility of looking after their horses. This involved cleaning and grooming their mounts, and mucking-out the stables – often before they ate themselves! Each horse had to be fed three times between sunrise and sunset, and ate four quarts of ear corn, six quarts of oats, and 14 lb of hay a day.

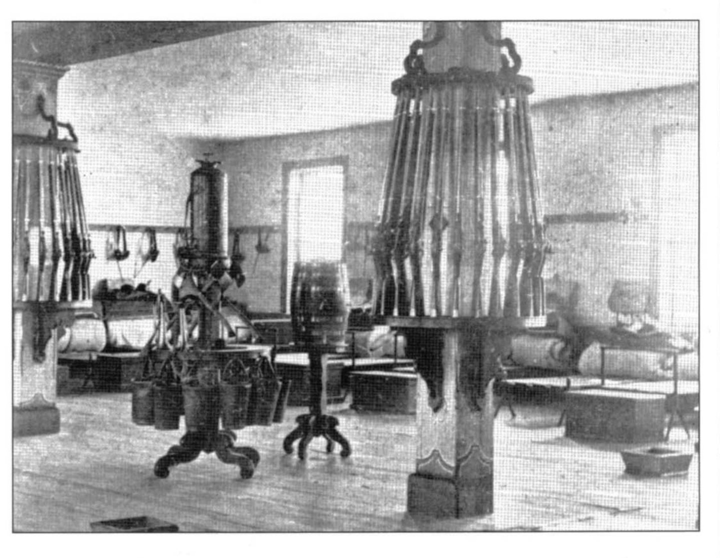
Living accommodation

The quality of barracks provided for enlisted men in frontier forts varied tremendously from post to post. In 1870, those at Fort Leavenworth consisted of three two-story wooden frame buildings, with porticoes above and below on the side facing the parade. Each building was intended for two companies, and each set of company quarters contained barracks, orderly and mess rooms, besides a kitchen and storeroom. The barracks at Fort Laramie during the same period consisted of four sets of wooden structures, and two of adobe. When inspected, they were described as being furnished with "two tiers of movable



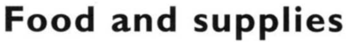
Regimental bands offered welcome entertainment for troops stationed in frontier posts. The band of the 5th Infantry pose for the camera in front of the post commander's quarters in Sumner Place, on the northeast side of the Main Parade at Fort Leavenworth, in 1870. (FAM)

bunks, constructed of rough white pine lumber, two men occupying each bunk when the companies are at the maximum. A few of the men have buffalo robes. The most of them are fain to protect themselves against the rigor of the winter by eking out their scanty covering with their overcoats. They nearly all complain of sleeping cold."



Photographed sometime between 1872 and 1881, this interior view of the enlisted men's infantry barracks at Fort Leavenworth shows Springfield rifles locked in their stands. Also note the axes and fire buckets on the smaller stand. The mattresses are rolled back ready for inspection, and the men's accoutrements can be seen hanging from hooks around the wall. (KSHS)

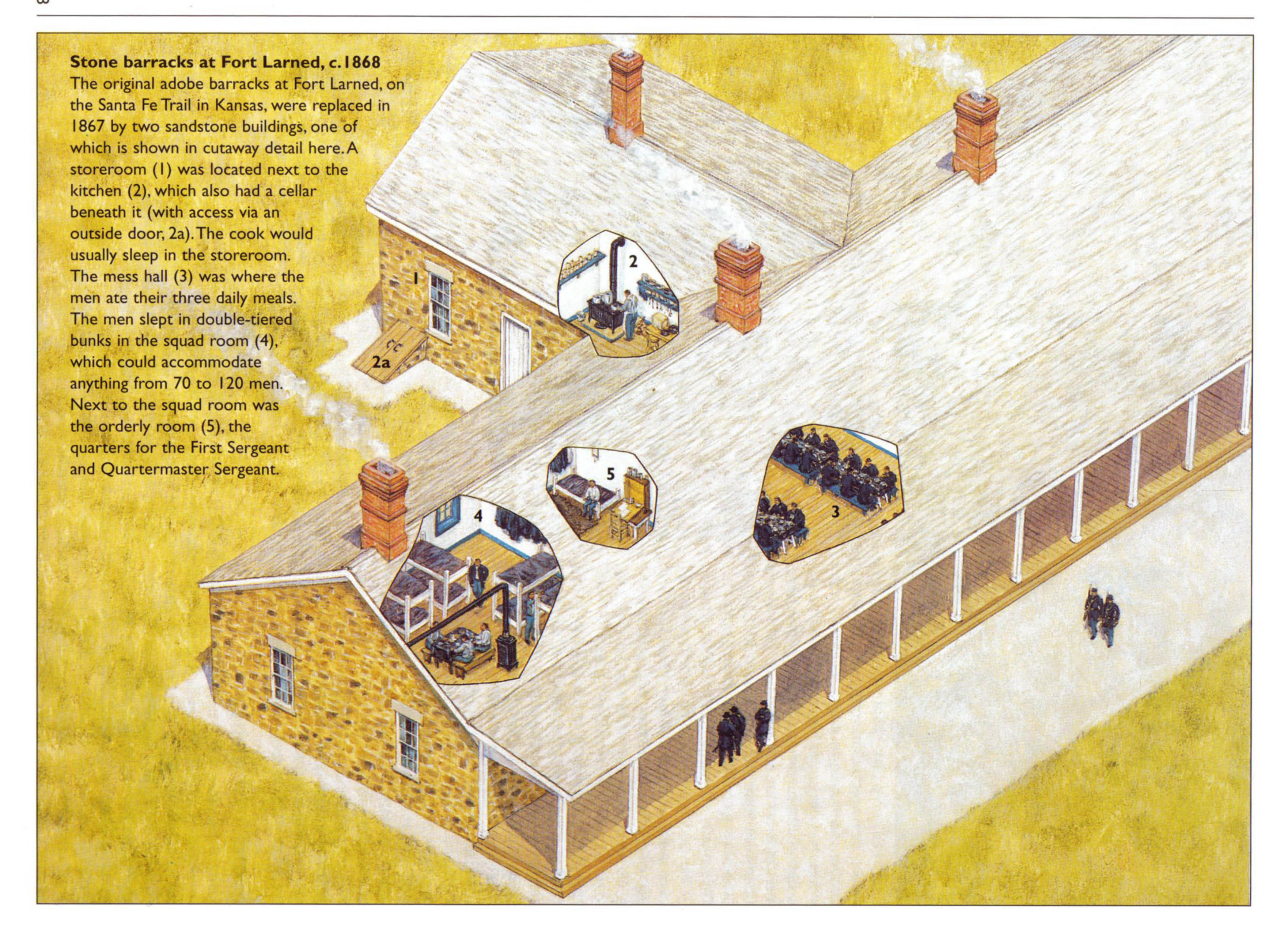
Barracks provided at more remote posts were more primitive. Those at Fort Connor (later Fort Reno) in Wyoming Territory in 1865 were built of unhewn cottonwood logs, "chinked and mud-plastered." Those at Fort Phil Kearney, Wyoming Territory, in 1866 were long, single-storied log buildings designed to accommodate 100 men. Describing the roof construction, Musician F. M. Fessenden stated: "The roof was of poles about four inches thick, put close together, then covered with corn sacks or grass, with about six inches of earth over this for 'shingles.' Such a roof seldom leaked." A porch ran along the length of the front facing the parade, and the main space was taken up with the dormitory. Orderly and storerooms were situated at one end of the building, while the wash and mess room was placed at the other. These buildings were also originally intended to include kitchens, but these were excluded to save labor. Only the barracks of Company A, 18th Infantry initially had a plank floor, and this was because the men hauled the logs themselves, and then paid the sawyer from their company fund.



Food and supplies

Army food was no more exciting than the routine duties. Daily rations consisted of beans, hardtack, salt bacon, flour, range beef, coffee beans, and coarse bread. Amounts issued were based on the number of men officially listed on company rolls. Meals were flavored with salt, brown sugar, and molasses. Most meals were boiled together regardless of their original composition, which led to a variety of hashes and stews nicknamed "slumgullions."

Despite the knowledge that fresh produce kept scurvy at bay, vegetables, eggs, milk, butter and fresh fruit were usually missing from the army diet. Hence, enlisted men either had to acquire them in nearby communities,



Stone barracks at Fort Larned, c.1868
The original adobe barracks at Fort Larned, on the Santa Fe Trail in Kansas, were replaced in 1867 by two sandstone buildings, one of which is shown in cutaway detail here. A storeroom (1) was located next to the kitchen (2), which also had a cellar beneath it (with access via an outside door, 2a). The cook would usually sleep in the storeroom. The mess hall (3) was where the men ate their three daily meals. The men slept in double-tiered bunks in the squad room (4), which could accommodate anything from 70 to 120 men. Next to the squad room was the orderly room (5), the quarters for the First Sergeant and Quartermaster Sergeant.

purchase them from the post sutler, or grow them. As it reduced transportation costs and improved the health of the men, the government and post surgeons positively encouraged the third option. The excessive heat of the summer months made it difficult to keep meat and fish fresh for very long, despite the existence of ice-houses at some posts. In 1868, the commissary at Fort Larned, in eastern Kansas, had an oversupply of fish and meat, and in order to prevent the food from rotting and being wasted in the approaching warm weather, it was ordered that each man's meat ration would consist of "one-tenth mackerel, one-tenth codfish, one-tenth bacon shoulders, two-tenths pork and five-tenths fresh beef." During the summer months, fresh water was obtained from melted ice whenever possible.

Intoxication was a serious problem in the Army. At some posts over 25 percent of the officers and enlisted men were alcoholics, while many more were prone to periodic heavy drinking. Post surgeons' records were replete with cases involving excessive consumption of alcohol. For example, while based at Fort Wallace in Kansas during 1868, Acting Assistant Surgeon T. H. Turner reported that "Several gunshot wounds, one of which was instantly fatal, occurred during the month, the results of drunken rows."



Although discouraged at many frontier posts, gambling was a favorite pastime for the soldiers in barracks. (SI)

Sutlers and post traders

The sutler operated a general store that was usually on the military post. There were many changes in the regulations regarding the role of the sutler, but in general he was given a monopoly of all buying and selling in his jurisdiction, for which he paid a fee. He was appointed by the military authorities and was granted the rank of warrant officer in order to give him standing with the men, although he received no pay from the government, and could not command Army personnel.

In 1867 the Army abolished the sutler system and established "post traderships." These civilian traders were also allowed to ply their wares at certain frontier forts, and were generally permitted to sell firearms and ammunition to friendly Native Americans. As a direct result of the outbreak of Red Cloud's War in 1866, post commanders were given far greater control over such transactions. A directive issued in February 1867 by Brevet Major General Alfred H. Terry, commanding the Department of Dakota, required that Indians be sold only enough "powder and lead" to enable them to hunt and subsist. The stock of ammunition belonging to an Indian trader was to be kept in the post magazine, and only issued in amounts considered "safe" by the post commander. All sales of ammunition stopped with any signs of Indian hostilities within the vicinity of the post.

Health and sanitation

Healthcare was a serious concern at frontier forts. Officers gave little attention to hygiene, preventative medicine, or sanitation except in times of crisis, such as an outbreak of cholera. Such primitive medical provision resulted in a high rate of sickness from ailments commonly listed as intermittent fever, respiratory afflictions, digestive afflictions, brain and nervous disorders,

The sutler's store at Fort Dodge, on the Santa Fe Trail in Kansas, was sketched by Theodore R. Davis and then published in *Harper's Weekly* on May 25, 1867. (KHC)





Theodore Weichselbaum and Jesse Crane were sutlers at several military posts. They opened their first store at Fort Larned in 1860, and had this stone building put up in 1863. (KSHS)

venereal disease, and abscesses and ulcers. On average, every soldier was hospitalized about three times a year, and one in every 33 men died of disease. Fort Rice in Dakota Territory, founded on July 11, 1864 during General Alfred Sully's expedition against the Sioux, lost more of its garrison during its first year than the other years combined. Eighty-one men died from 1864 to 1865: of these, 37 died from scurvy, while eight were killed by Indians.

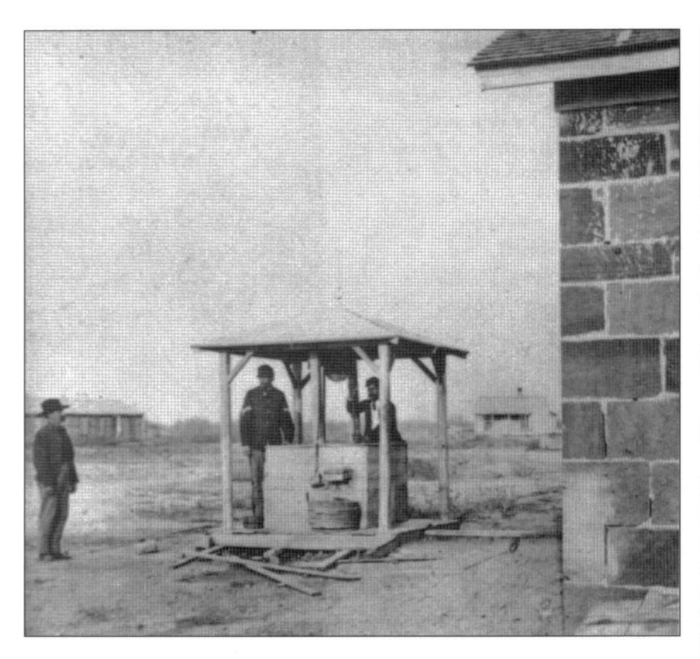
Some posts were assigned regular Army surgeons with the rank of major. However, due to a limit on the number of surgeons permitted in the medical department, others were required to pay civilian doctors to look after sick soldiers. In either case, hospital stewards recruited from the ranks assisted surgeons on a rotating basis. Their duties involved providing nursing care for the sick and wounded, preparation of meals, changing dressings, bathing patients, plus any other tasks ordered by the surgeon.

More isolated outposts often survived without a surgeon. On December 2, 1865 Lieutenant Ferdinand Edwin de Courcy, 13th US Infantry, commanding Fort Ellsworth (later renamed Fort Harker) in Kansas, informed the department commander at Fort Leavenworth; "the men of this command are suffering from Diarrhea and other diseases and as there is no medical officer nor medicines of any kind at this post, I would respectfully request that a medical officer be ordered here to render medical assistance to the men who are really suffering from want of proper treatment." On March 7, 1867 Isaac Coates was hired by the Army to serve as assistant surgeon at Fort Riley in Kansas for $100 per month, or $113.83 when on field duty. The pay increase reflected the early focus on wounds and injuries received in combat.

Most frontier posts had a hospital building, which could vary in size and composition depending on the location. The original hospital at Fort Wallace in Kansas consisted of a central building of stone, measuring 34 × 44ft, with

two wings for wards, each 24 × 48ft, with a capacity of 12 beds. The main building housed four rooms, consisting of the surgeon's office, the surgery, the stewards' room, and the storeroom. The second story contained the stewards' quarters, another storeroom, and a mortuary. Another building behind the hospital served as the kitchen, dining room, laundry, and cellar.

The hospital at Fort Reno in the Powder River Country of Wyoming was far more primitive, being described in an inspection report written by Brevet General William B. Hazen in 1865 as follows: "It has a single ward with about ten feet partitioned off at one end, in which is quartered the Surgeon, which is his dispensary, and in which he keeps all his stores and supplies ... Cooking is done in the ward, and although the hospital has a general cleanly appearance, I can conceive of but little additional comfort to anyone placed there."



The garrison well behind the enlisted men's barracks at Fort Larned was photographed in 1878. Although there were several wells at this post, drinking water was drawn from Pawnee Fork River as the groundwater was sulfurous. (KSHS)

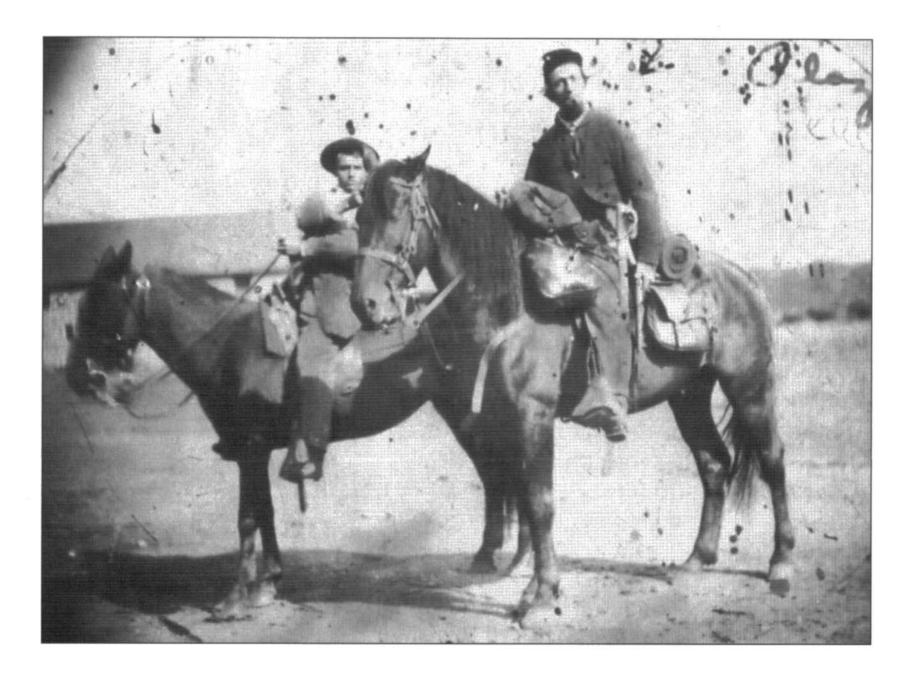
Sanitation was also a major concern for the post surgeon. Toilet facilities at military posts were predictably primitive. Known as "sinks," they were usually nothing better than open pits with rough board housing placed over them. Certain posts, such as Fort Laramie, used some of their wells for the purpose with obvious risk to the inhabitants' health. Each barracks building at that post was provided with its own "sink." In 1868, these were described at one fort as being kept in "tolerably good order, and lime is thrown into them once a week." Those at Fort Leavenworth consisted of "vaults dug in the rear of all the habitable buildings, which, when they become too foul, are filled up and new ones dug." Disinfectants were used regularly in the summer months "to keep up a constant acid reaction."

Refuse or garbage was also a constant problem at military posts. On February 27, 1868 Major Meredith H. Kidd, 10th Cavalry ordered all the "accumulated filth" around Fort Larned in Kansas to be taken not less than one mile from the post and buried. That collected at Fort Leavenworth was also carted about a mile from the garrison and thrown into the Missouri River.

Orders issued at Fort Ransom in North Dakota reveal some of the issues concerning a frontier post protected by a stockade. Throwing ashes and garbage "upon the parapet, into the ditch, and even to some extent upon the parade," was noted in 1869. As a result, trash barrels were introduced. Stray dogs were also targeted at this time. Instructions issued on November 26, 1869 stated: "No dogs will be allowed to run loose within the limits of the breastworks of this post and sentinels will be instructed to shoot every dog loose in violation of this order."

Soldiers' wives and laundresses

All enlisted men recruited into the Army were required to be unmarried, although they were allowed to marry while in the service, with the permission of the commanding officer. However, only a small percentage of enlisted men actually married. This was partially due to the shortage of women on the frontier, and also because the low pay received by soldiers provided insufficient funds to support a family. Most wives of enlisted men were employed as laundresses. These were the only women recognized by the Army as having a reason to live at a military post. Hence, laundresses' quarters were provided, and a scale of payment was set for officers and enlisted men who used their services. Clothes were usually washed in wooden tubs with hot water heated in large iron



Volunteer regiments garrisoned the frontier forts during the Civil War years. Corporal George H. McCoon, a saddler in the 3rd Wisconsin Cavalry, was photographed on the parade at Fort Scott during 1862–63. The former dragoon stables may be seen in the background. (FSNHS)

kettles by the laundresses. According to Elizabeth Custer, the quarters for the laundresses at Fort Abraham Lincoln in North Dakota were called "Suds Row", and were easily identified by the "swinging clothes-lines in front."

No provision was made for officers' wives, who were officially considered to be "camp followers." Housing for officers was assigned by rank, regardless of marital status. This meant that an unmarried captain could force a lieutenant with family from adequate accommodation into a single room, or, even worse, a tent.

Soldier's wives often left graphic accounts of life in a frontier fort. The wife of Major Andrew Burt kept a diary during her stay at Fort C. F. Smith, in which she noted: "As quarters were crowded, we could only have two rooms and a kitchen. The latter had been hurriedly built of logs for occupancy by an officer when the post was built the previous year. The floor was of dirt beaten hard and covered with gunny sacks. The new rooms were of adobe and plastered walls and planed wood-work."

Punishment and discipline

Soldiers who committed crimes or were guilty of negligence were locked up in the guardhouse. Chargeable offences often included fighting, disobeying authority, deserting a post, sleeping on duty, or drinking excessively. Men who committed severe crimes were placed in solitary confinement without a blanket. Prisoners who committed minor crimes would be given a blanket and placed in a communal cell or room. In 1868, the guardhouse at Fort Wadsworth, Dakota Territory, was a one-story brick building containing two rooms and two cells. The latter measured 4 x 8ft, and were described as "damp and dark, with no ventilation except by a small half circular opening, three inches in diameter, at the top of each cell door." The rooms were warmed by woodstoves, but had "no ventilation, and bad floors." Disciplinary punishments included flogging; hard labor; sitting on a "sawbuck" (a carpenter's stand) with hands tied behind the back; carrying a log; and standing on a barrel.

Training and post security

Greater firepower and a judicious use of artillery was a huge asset to the troops who formed the garrison at frontier posts. Hence, it was vital that they drilled

regularly in the use of the cannon. While posted at Fort McPherson in Nebraska during 1864, Captain Eugene F. Ware, 7th Iowa Cavalry recalled:

> "Along on the side of the hill west of our post, and about five hundred yards from it, we put up a palisade of logs sunk in the ground, and forming an eight-foot square target. I practiced with our howitzers upon this target until I got the exact range and capacity of the two guns. They varied but little; we had to know how far the guns would shoot, and the number of seconds on which to cut our shell fuses."

Likewise, infantrymen needed practice to prevent getting out of condition when garrisoned for long spells of time at one post. During the winter of 1867–68, the *Record of Events* for the 27th Infantry stationed at Fort C. F. Smith stated: "Drill, Upton's Tactics have been had every day. Theoretical recitations, once a week. No Target Practice during the month." Colonel Merriam, commanding the 7th Infantry at Fort Laramie in 1886, decided to give his men "a little exercise in the way of marching." According to a local newspaper correspondent, he "detailed two companies for ten days march to Laramie Peak, heavy marching order." On the return of the first two companies the others took up the same route until all have had a turn. "This practicing in marching is a splendid idea," the reporter concluded, "for in the event of any unpleasantness ... every thing will be in ship shape for a heel and toe contest from here to the Rio Grande."

Regarding the stockade defense works at Fort C. F. Smith, the wife of Major Andrew Burt recalled: "Its two gates were closed at retreat and sentinels kept watch at its corner bastions. At each quarter-hour of the night would be heard their cry of the hour and 'All's well.' My husband always retired with his clothes on and boots close at hand, ready to put on at a moment's notice."

Security was often threatened by the presence of Indians hanging around frontier posts. On January 26, 1867 Major-General Hancock, commanding Headquarters Department of the Missouri, issued the following order relative to the matter.



A Rucker-style Army ambulance wagon stands on the parade ground at Fort Larned. The post hospital and saddler's shop can be seen in the background. (FLNHS)

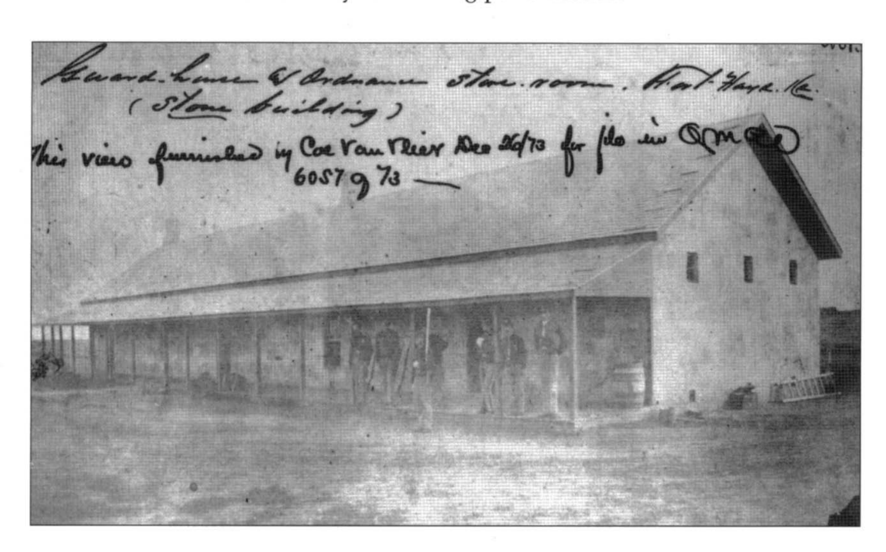
"Commanding officers of posts should not countenance the practice of allowing Indians to visit or loiter about their posts, and Indians should never be permitted to know the number of troops forming the garrison of posts, or to observe the means of defense. Necessary interviews with them should be held outside the garrison, and only in the presence of proper escorts, and in no case should any but important chiefs be permitted to see the interior of a military post, and they only when they may be specially invited by the commanding officer. No armed Indians will be allowed to present themselves at any such interview, or to enter any military post."

Entertainment and education

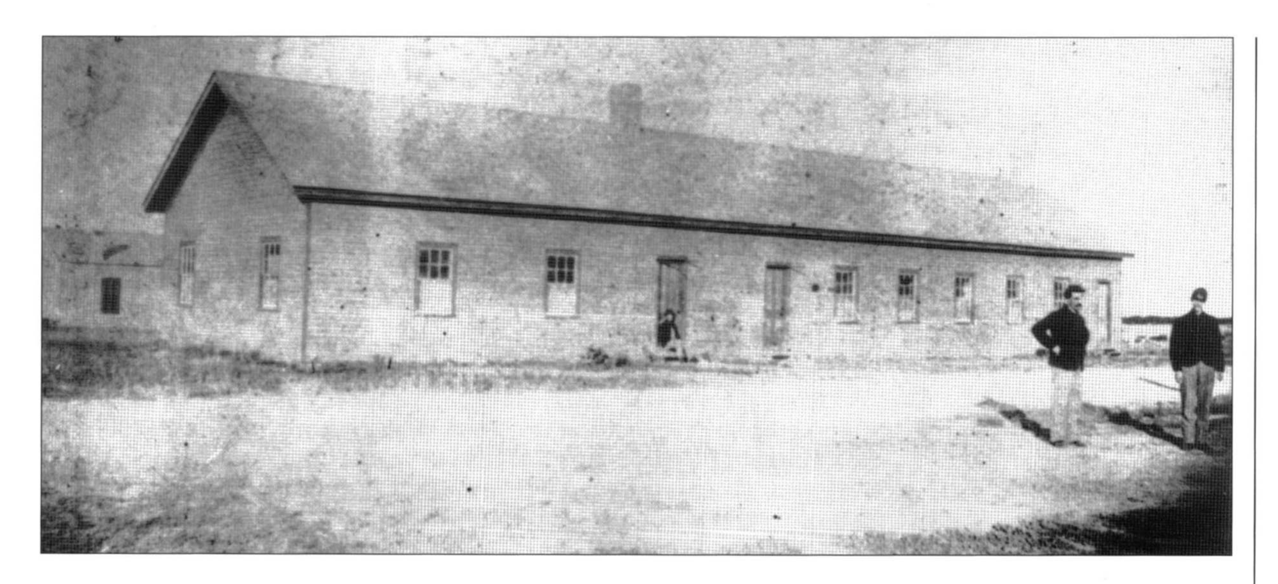
Boredom and hardship were major concerns among many frontier garrisons. On May 18, 1874 Captain F. Van Vliet of Company C, 3rd Cavalry felt so strongly about the hardships imposed on the garrison at Fort Fetterman in Wyoming that he wrote to the Adjutant General requesting his company be transferred. He complained that there was "no opportunity for procuring fresh vegetables, and gardens are a failure. There is no female society for enlisted men ... whenever men get to the railroad there are some desertions caused by dread of returning to this post."

According to a letter published in the *Rocky Mountain News* in 1865, the garrison at Fort Sedgewick in northeast Colorado organized a club, the purpose of which was to "promote an interest for members to study, to divert their minds from evil habits and associations (such as soldiers too frequently resort to for enjoyment), to kill the monotony of a soldier's life on the plains ... It is intended to impart to all concerned a knowledge of Parliamentary etiquette and the first principles of the speaker and the man of business."

During October 1872, a member of Company K, 6th Infantry stationed at Fort Stevenson, Dakota Territory, wrote of the dreariness that was "the usual accompaniment of winter in military posts of the far West. Night comes on at a very early hour, confining the men to their quarters, where with little or no amusement or occupation, they are afflicted with as great an ennui as could visit the jaded voluptuary of the fashionable and crowded capital." The solution for the men of Company K was the formation of a Literary and Social Union club, which subscribed to numerous newspapers and periodicals. A "dramatic club" was organized for the same purpose by men of the 20th Infantry at Fort Columbia in Dakota Territory. The "most approved plays were performed with great display of histrionic talent, and with ... the house being crowded to its utmost at every succeeding performance."



Measuring 80 x 20ft, the stone guardhouse and ordnance storeroom at Fort Hays in Kansas was built during 1872 to supplement a smaller wooden-frame structure. (KSHS)



The post chapel was often used as a school and a dance hall, as well as a place of worship. The chapel at Fort Hays in Kansas originally stood at Fort Harker. When the latter post was abandoned in 1872, its chapel was dismantled brick by brick and transported to its new home. (KSHS)

The commanding officer of Company K, 7th Infantry at Fort Shaw in Montana was at pains to provide his men with a good military education. During February 1872, a company member wrote:

"we have school here twice a week, and during the intervals between each school night, we have plenty of time to study the lessons given to us by our captain. *Upton's Military Tactics* is but light reading when compared to the more solid branches of history. Jomini's *History of Napoleon*, Halleck's *Laws of War*, the different battles in which Napoleon has been engaged, as well as pointing out on the map Bonaparte's route into Egypt, is often a part of our lessons on each school night."

Lighter entertainment also helped to while away the tedium of long winter evenings at the same post. In a letter also written during February 1872, another soldier described a ball organized by Company H, 7th Infantry:

"The mess room was fitted up in a tasteful and creditable manner, the many wreaths, bouquets, artificial flowers, evergreens, etc. all being placed in a proper position by the skilful hand of Sergeant Dorot, Company H. Dancing commenced at 8.30, the band, under the leadership of Sergeant Kunsell, rendering the most eloquent strains while the dancing was going on. At 12.30, all hands repaired to the supper room, where was found a most sumptuous repast, placed on tables decorated by the delicate hands of the ladies, assisted by Corporal Volkey, Company H. Ample justice being done to the many good things, the ball room was again filled, when the dancing was kept up until near daylight, when all repaired to their homes satisfied with the night's entertainment."

Similar distractions were created at Fort Buford, in Dakota Territory. A letter written during June 1871 notes:

"A ball was held here in February by the soldiers and citizens of this post ... All the officers and ladies of the garrison were present, and seemed to enjoy it greatly. The Colonel and Captain Blunt were the two merriest gentlemen of the party. The ball terminated with a most admirable supper; and after a jig from First Sergeant Connor, a song from Cummins and Baker, and a clog from Cooney, all excellent in their way, the party broke up, all evidently satisfied with the night's amusements."

The forts at war

Colonel and Brevet Major General Philippe Regis de Keredern de Trobriand, commanding the 31st Infantry, arrived to take up his first posting on the frontier at Fort Berthold, Dakota Territory, in 1867. Shortly after his arrival, he recorded the following in his diary: "Since the Indians never attack a fort, even though most of these forts are nothing but a fence of palisades surrounding the buildings, the whites are safe, even without a military garrison." Clearly he had taken little note of what had transpired at his own post, plus many others on the Northern Plains, during recent times!

A mere five years prior to de Trobriand's arrival, the Sioux attacked Fort Berthold while it still belonged to the American Fur Company. Dr Washington Matthews, the post surgeon for most of the period that the fort was owned by the Army, recorded in his official report:

> "On Christmas Eve of 1862, while most of the friendly Indians were absent at their winter quarters, the post was attacked by a large party of Sioux, who reduced the old fort and the greater part of the village to ashes, and nearly succeeded in capturing the inhabited stockade. The citizen garrison, however, defended itself bravely, and aided by the timely arrival by some Indians from winter quarters, succeeded in driving off the Sioux with great loss to the latter."

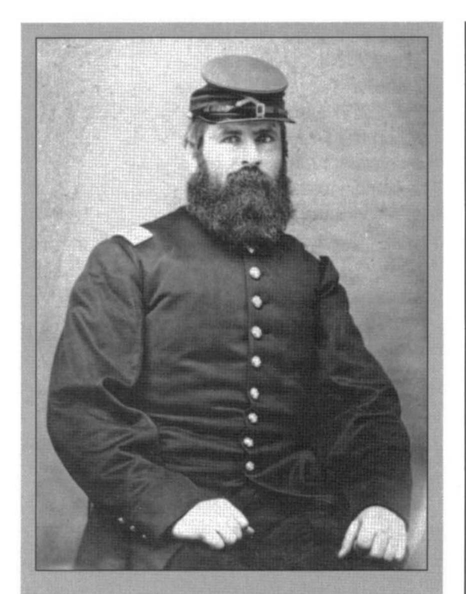
Supply centers and operational bases

Certain military forts functioned as vital supply bases for troops during the Plains Indian Wars. Although originally established in 1805, Fort Snelling in Minnesota was described in a travel guide in 1872 as "a supply post whence are sent men and supplies to the frontier forts now hundreds of miles further in." Built in central Nebraska during 1848, New Fort Kearney had become a major supply base by 1864. Captain Eugene F. Ware, 7th Iowa Cavalry described it as containing "a vast warehouse in which supplies for the west were stored in great quantities." Fort Leavenworth served as the headquarters for most of the



Fur-trade forts occasionally came under attack, despite their peaceful role. For many years, Fort Union was a meeting ground for traders, settlers, and Native Americans alike. Towards the end of the Civil War, the dilapidated post took on a military role when it was occupied by Union troops under General Alfred Sully. This engraving shows cattle being herded into the fort during an Indian raid in July 1868. (LOC)

final campaigns on the Central Plains. Although constant reorganizations altered geographical designations and names of the commands that fought these wars, the Army invariably organized its expeditions from Fort Leavenworth. It was also the post to which soldiers returned to see their families. Originally known as Omaha Barracks, Fort Omaha was constructed in Nebraska during 1868, and ten years later became the headquarters and main supply base for the Department of the Platte. Established by General Alfred Sully along the west bank of the Missouri River near the mouth of the Cannonball River, Fort Rice served as a base of operations for the Northwestern Expeditions of 1864 and 1865, and the Yellowstone Expeditions of 1871 through 1873. In the 1876 war against the defiant tribes who withdrew to the Powder River country, Fort Laramie played a primary role as a base of operations, supplemented by the new Fort Fetterman at the main North Platte crossing 80 miles upriver. Under the command of Colonel William B. Hazen, 6th Infantry Fort Buford was made the supply depot for the troops in the field following the massacre of Custer and his battalion of the 7th Cavalry in 1876.



John Jones and the defense of Fort Ridgely

Ordnance Sergeant John Jones commanded some of the cannon during the successful defense of Fort Ridgely in 1862. His official report of the action stated: "The alarm was given about 2 p.m. on the 20th; the gun detachments were promptly at their post, and gave much satisfaction, I am sure, to all who witnessed the action. Aided by the small-arms parties this attack was repelled, and the guns, under their respective chiefs, drove the Indians from the ravines by well-timed shells and spherical-case shot. On the 22d of August, 1862, a still more determined attack was made about 2.30 p.m. by a very large Force of Indians. The balls fell as thick as hail, and they seemed determined to drive the men from the guns, but they failed in so doing, and I think I may safely state, without flattery, that the safety of the garrison was solely dependent upon the superior courage of the non-commissioned officers, privates, and citizens, who so nobly stood to their posts; and, in order that their merit may be duly appreciated, I beg leave herewith to append their names. The number of shots fired by each gun it is not at present possible to state until an opportunity offers of counting the ammunition stored in the several buildings. The small-arms ammunition on hand was all expended, but by your energies in organizing a party to cast balls and make cartridges we have still a moderate supply. The ammunition for the field guns is in good order and in quantities sufficient for the emergency." (Photo courtesy MHS)

The Dakota War, 1862

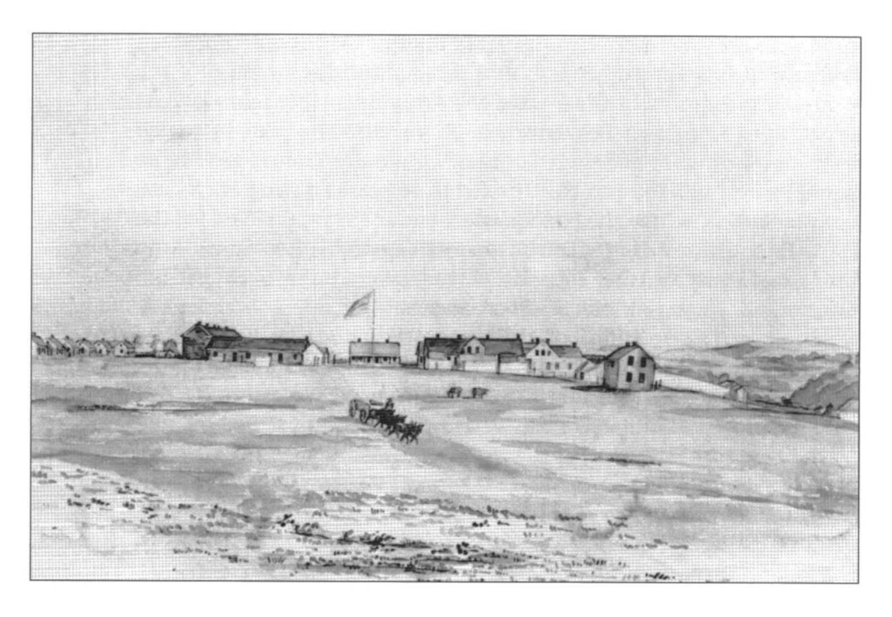
Continued white encroachment on Indian lands, combined with the nefarious practices of fur traders, and crop failure, caused the first major war on the Northern Plains. In August 1862, the Dakota of southern Minnesota attacked settlers there. On the 17th of that month, these Indians massacred a white family near Acton as they sat down for their Sunday meal. Other white farmsteads and communities were attacked all along the Minnesota River, and the ensuing bloodbath led to 757 dead, of which 644 were civilians.

Refugees consequently poured into Fort Ridgely, which was garrisoned by Company B, 5th Minnesota Infantry commanded by Captain John S. Marsh. Established in 1853, this small fort watched over the Lower Sioux Agency in southwest Minnesota, and barred the way into the Minnesota River Valley. It had also served as a training base and staging ground for Civil War volunteers since 1861. In an effort to "prevent and arrest Indian disturbances," Marsh marched out of the fort on August 18, at the head of a 50-man detachment, and headed towards the Lower Sioux Agency, which lay about 12 miles away. Within sight of the Agency, he was ambushed by the Sioux at the river crossing at Redwood Ferry, losing 23 men as he withdrew into the wood thicket along the riverbank. During the running battle that ensued, Marsh drowned as the remainder of his command swam across the river, and fought their way back to the fort. The Sioux split into two groups following their victory at the river. One party moved against Fort Ridgely, while the other party headed off to attack the town of New Ulm.

Attacks on Fort Ridgely

Lieutenant Thomas P. Gere, a junior officer, had been left in command of Fort Ridgely with 30 soldiers: despite being ill with mumps he managed to dispatch a lone rider to request reinforcements from Fort Snelling, some 125 miles away. He also sent word to First Lieutenant Timothy J. Sheehan, who had marched out with 50 men from Fort Ridgely, bound for Fort Ripley about 100 miles to the north. On receipt of the news, Sheehan returned with all haste to Fort Ridgely, and took command of its defense. That same day, a militia company called the Renville Rangers, commanded by

Painted before the stockade was erected in 1863, this watercolor shows Fort Ridgely from the northeast. The log houses can be seen on the far left, next to which is the taller, stone barracks building. The laundry stands behind the flagstaff, and the granary can be seen on the far right. (SHSND, A5208)



Lieutenant J. Gorman, arrived from St Peter to swell the ranks of the defenders to 180 "effectives." Fort Ridgely also contained four cannon left behind under the care of Ordnance Sergeant John Jones when the regular soldiers marched off to fight the Civil War. With the help of several other experienced artillerists, Jones had trained some of the Minnesota volunteers, plus several civilians, to man these guns when required. In his after-battle report, Lieutenant Sheehan recorded, "I adopted every possible means in my power for the defense, by erecting barricades, covering the store-houses with earth (to guard against fire arrows, several of which were thrown), determined to sacrifice all but the men's quarters and store-house, which are stone buildings."

On August 20, about 400 Sioux led by Chief Little Crow attacked Fort Ridgley. Lieutenant Sheehan formed his men into a square on the 90-yard-wide parade ground, but quickly ordered them to take cover and fire at will after one man fell dead and another was wounded. The Indians caused a diversion on the west side of the fort, while the main body of warriors crept up and attacked from the east. The hastily constructed barricade (consisting of long rows of cordwood with gaps plugged by barrels of salt pork, flour, and beef) was penetrated, and some Indians fought their way inside several buildings. One of the two 12-pdr mountain howitzers, commanded by J. C. Whipple, a civilian refugee from the Lower Sioux Agency, occupied the gap between the two-story, stone barracks building and the bakehouse. The other 12-pdr, under Sergeant James McGrew, was wheeled out from the northwest corner amidst a shower of arrows and bullets, and was aimed towards the northeast. The converging fire of both guns, combined with a volley of musket fire from the supporting infantry, drove the Sioux away from the buildings and back into a ravine.

Meanwhile, Sergeant Jones manned a 6-pdr gun placed in a particularly exposed position in the western corner of the fort, between the headquarters building and some of the officer's quarters. As the Sioux attacked, Jones fired the piece point-blank into the oncoming horde (see page 54 illustration). Stopped in their tracks, the remaining warriors withdrew to lick their wounds.

Rain fell that night and throughout the next day, but the Sioux resumed their attack on August 22. An estimated 800 warriors, including Sisseton and Wahpeton braves, surrounded the beleaguered post. Camouflaged with flowers and prairie grass tied to their headbands, they crawled unseen towards the fort. In an attempt to set fire to the buildings, they fired flaming arrows on to their roofs, but the earth-covered and rain-soaked structures were difficult to ignite, and the attackers were driven off with heavy casualties.

At the height of this second assault, the defenders began to run out of small arms ammunition. After consultation with Sergeant Jones, Sheehan ordered the balls removed from some of the "spherical-case shot" used by the artillery, and Eliza Muller, the post surgeon's wife, organized the womenfolk sheltering in the fort into making cartridges in a ground floor room of the barracks building.

An all-out attack followed later that day, with war chief Mankato leading a charge on the southern angle of the defense works. Once again, the 6-pdr cannon posted there was used to great effect, scattering the Sioux in every direction. When some Indians broke into the stables that stood about 40 yards south of the parade ground, a well-placed artillery shell set that building ablaze. A similar fate befell the sutler's store when some of the warriors tried using it for cover. Lieutenant Sheehan recalled:

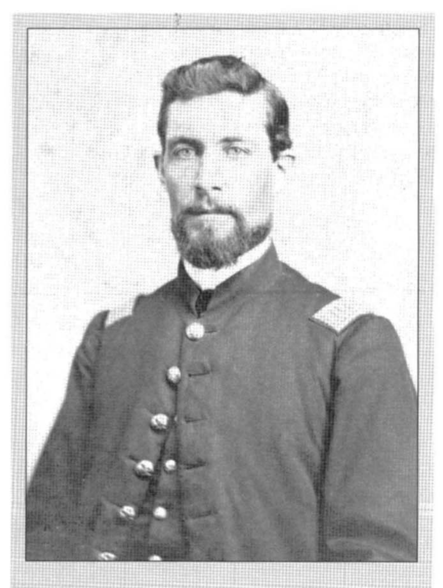
> "The balls fell thick all over and through the wooden building erected for the officers' quarters. Still the men maintained their ground. The Indians prepared to storm, but the gallant conduct of the men at the guns paralysed them, and compelled them to withdraw, after one of the most determined attacks ever made by Indians on a military post."

The exhausted defenders held out for several more days until reinforcements under Colonel Samuel McPhaill, sent ahead of a relief column commanded by Colonel Henry Sibley, arrived on August 27 to drive the remainder of the Indians off. Casualties for the Sioux were estimated at about 100, while those of the whites numbered only three dead and 13 wounded. Big Eagle, a Sioux chief who took part in the attacks on Fort Ridgely, summed up the significance of the Indian defeat as follows: "We thought the fort was the door to the valley as far as to St. Paul, and that if we got through the door, nothing could stop us this side of the Mississippi, but the defenders of the fort were very brave and kept the door shut."

The siege of Fort Abercrombie

Three days after the relief of Fort Ridgley, some 250 Sioux drove off the horse herd at Fort Abercrombie, on the west bank of the Red River in North Dakota. Garrisoned by Company D, 5th Minnesota Infantry under Captain John Vander Horck, this post was also without a stockade or blockhouse. About 160 refugees gathered behind its hastily prepared defenses as the Indians closed in around them. The first attack on the fort itself began at dawn on September 3, but was met by a wall of cannon and musket fire; the garrison was already alert because a sentry had accidentally shot Captain Vander Horck in the arm as he was inspecting the outer picket line a few hours before. The Indians concentrated their attack on the west-facing defense works, where the stables presented a tempting target. With the commanding officer wounded, and the second in command, Lieutenant Francis A. Cariveau, sick, responsibility for the defense of the fort fell upon Lieutenant John Groetch. Lit by the grotesque light of burning haystacks, the fighting went on for about five hours, but only two defenders were wounded – one of whom eventually died of his wounds. The Indians possibly lost as many as six dead and 15 wounded.

After the first attack had been driven off, Groetch also found that he was running out of small arms ammunition and, as at Fort Ridgely, removed balls from the canister used by the three 12-pdr



The attack on Fort Ridgely

Following the Indian attack on Fort Ridgely in 1862, Lieutenant Timothy J. Sheehan, Company B, 5th Minnesota Infantry, reported: "On the 22d [August] they returned with a much larger force and attacked us on all sides, but the most determined was on the east and west corners of the fort, which are in the immediate vicinity of ravines. The west corner was also covered by stables and log buildings, which afforded the Indians great protection, and, in order to protect the garrison, I ordered them to be destroyed. Some were fired by the artillery, and the balance by the Renville Rangers, under the command of First Lieut. J. Gorman, to whom, and the men under his command, great credit is due for their gallant conduct. The balls fell thick all over and through the wooden building erected for officers' quarters. Still the men maintained their ground. The Indians prepared to storm, but the gallant conduct of the men at the guns paralyzed them, and compelled them to withdraw, after one of the most determined attacks ever made by Indians on a military post." (Photo courtesy MHS)

Cannon played a major role in the defense of frontier forts. Living-history experts representing an ordnance sergeant and officer pose by two 12-pdr bronze mountain howitzers at Fort Larned in Kansas. (FLNHS)



howitzers at the post and turned them into cartridges. The civilians, led by post quartermaster Captain T. D. Smith, were also armed with 54 double-barreled shotguns discovered in a delayed train of government goods en route to the Indians.

The heaviest attack on Fort Abercrombie was launched at dawn on September 6. On this occasion, the Sioux again concentrated on attacking the stable building, and managed to occupy it for about 10 minutes before being driven out. This was quickly followed by an assault on all sides of the fort, and intense fighting ensued for about six hours – the hottest contest taking place around the commissary building. However, casualties amongst the garrison were once again light, with only one man killed and one wounded.

Following this, the Indians gave up their attempts to take the fort by assault and settled down to a siege, during which they constantly harassed the defenders with sniping fire from a distance. Regular targets included members of the garrison who ventured down to the Red River for water, since the post had no well.

After a siege lasting 17 days, on September 23, 1862 reinforcements under Captain Emil A. Burge, 1st United States Sharpshooters arrived from Fort Snelling. Despite this, the Sioux attacked again three days later, mortally wounding a teamster. Repulsed by the strengthened garrison, the Indians were pursued by both infantry and cavalry, and were finally driven off by "a few shells thrown into the woods."

Indian raids in 1864

Native Americans continued to resist white encroachment on the Plains during the next few years, despite the punitive expeditions led by generals Sibley and Sulley in 1863 and 1864. Within months of the establishment of Fort Rice in Dakota Territory, during the summer of 1864 about 300 Indians stampeded the horse herd within a mile of the post. Others ambushed a logging detail in the woods. At dusk, the warriors appeared on a ridge overlooking the site. According to the post commander, "A few shells thrown among them soon made them disappear."

Settlements and outposts along the Santa Fe Trail in Kansas came under attack during the same period. On July 17, the Kiowa, Comanche, Apache, and

Arapaho, led by Satank, attempted to attack and destroy Fort Larned, which was garrisoned at the time by Company F, 12th Kansas Infantry, McLaine's Independent Battery of Colorado Light Artillery, a detachment of the 9th Wisconsin, and one company of the 15th Kansas Infantry. According to the post surgeon, W. H. Forwood, the Indians encamped in the vicinity were "allowed to come in and around the post at pleasure and they laid a scheme to massacre the whole garrison." A squaw dance was to take place at which it was hoped the soldiers would collect away from their arms. Scattered through the garrison, the Indians were to attack suddenly at a given signal.

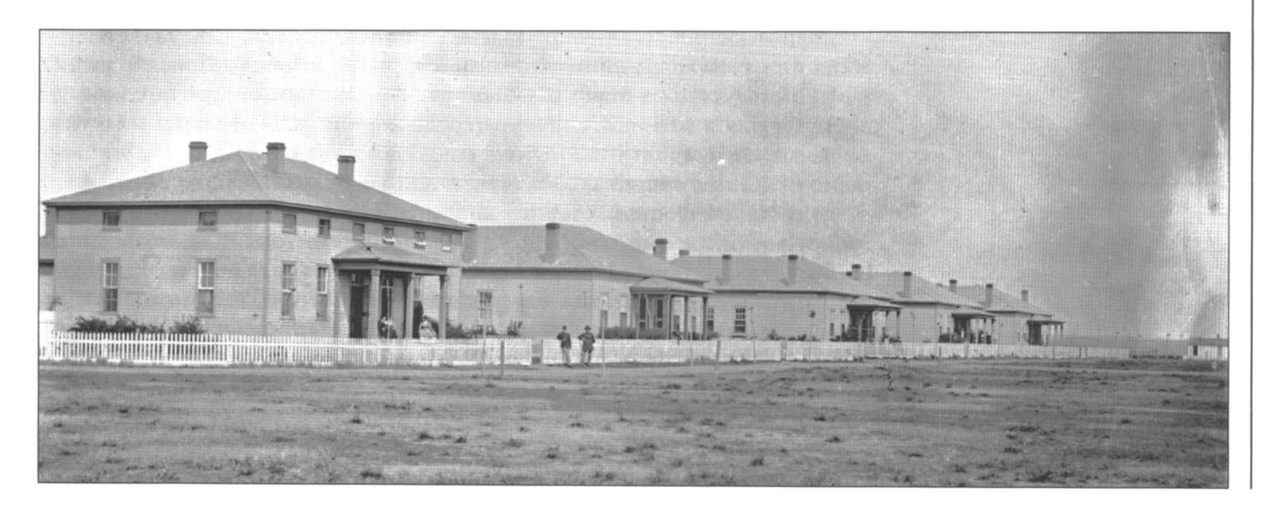
Fortunately, foul play was anticipated and the officer of the day instructed the sentinels to allow no more Indians to enter the garrison. Nonetheless, Satank approached the guard near the sutler's store. Upon being refused admittance, he became irritated and opened fire, first with an arrow and then with his revolver. The sentinel was wounded in the hand, but returned fire, killing a Mexican who was standing behind the Indian chief. The alarm being prematurely given, the Indians made no attempt at a massacre, but rushed instead to capture the stock; over 172 head of mules and horses were stolen. The Indians skirmished round Fort Larned until the next day, when, according to Surgeon Forwood, they went off "to depredate at another point on the Santa Fe Road."

Stationed at Fort Laramie in Wyoming Territory during the same year, Captain Eugene Ware of the 7th Iowa Cavalry recalled another attack. Having just returned from a three-day scout, a detachment of troopers were allowing their horses to roll on the level, sandy parade after removing their saddles, when a small party of braves charged right through the fort.

> "I heard a wild war-whoop, and through post and parade-ground rushed a body of wild Indians waving buffalo-robes, shooting fire-arms, and making a lot of noise. There could not have been to exceed thirty of them. They came so quickly and went through so fast, that there was hardly a shot fired at them, and they stampeded every horse on the parade-ground, and off they went with them. I got a look at them, and I thought that this raid was one of the most ridiculous things I ever saw. The Indians did not stop to shoot anybody, although they did fire some arrows at some of the groups of soldiers and officers that were on the side. But there was plenty of open way for them to go, and the horses went in front of them, and they after them. They made a dash for the north, and before anybody knew what was taking place the horses and the Indians were scurrying afar off."

The soldiers saddled-up their remaining horses, and went in pursuit for about ten hours, but failed to catch up with the daring bucks.

These officers' quarters at Fort Buford in North Dakota were built when the post was extended in 1874. The commanding officer's residence is nearest the camera of photographer David F. Barry. (DPL, WHC)



Revenge at Camp Rankin, 1865

A major catalyst for further trouble on the frontier occurred in November 1864 when Colonel John M. Chivington of the 3rd Colorado Cavalry descended on a Cheyenne-Arapahoe camp at Sand Creek near Fort Lyon in southeast Colorado. The massacre of around 250 men, women and children, far from breaking the Indian spirit, precipitated a powerful and vengeful alliance of all hostile tribes on the Plains.

One of the military posts subjected to revenge attacks was Camp Rankin, garrisoned by 45 men of Company C, 7th Iowa Cavalry. Situated in the northeastern corner of Colorado, where the Overland Stage and Pony Express trails headed south from the North Platte and joined the route to Denver. Later known as Fort Sedgewick, this post had been built from sod (turf) in 1864. On January 7, 1865 approximately 1,000 Cheyenne and Arapahoe suddenly descended on Julesburg stage station, about a mile from the post. A detachment of soldiers there fought a hasty rearguard action as the civilians sought protection in the fort, losing 14 men killed along the way. As the Indians approached Camp Rankin, a howitzer mounted in one of the sod bastions peppered them with grape shot, and the immediate threat was over.

In February 1865 the hostiles returned to attack Julesburg once again. While one party of braves hit the stage station, others waited in ambush for a relief force they hoped would sally forth from the undermanned military post. Watching as the settlement began to burn, one building at a time, a detachment of troops once again drove the Indians back with several well-placed shells from one of their howitzers. On this occasion, the hostiles rallied and surrounded Camp Rankin, and attempted unsuccessfully to set fire to a haystack in the compound by firing blazing arrows over the wall. As night fell, they discovered a liquor cache amongst the ruins of Julesburg and went on a drinking spree – following which they broke up in disorder.

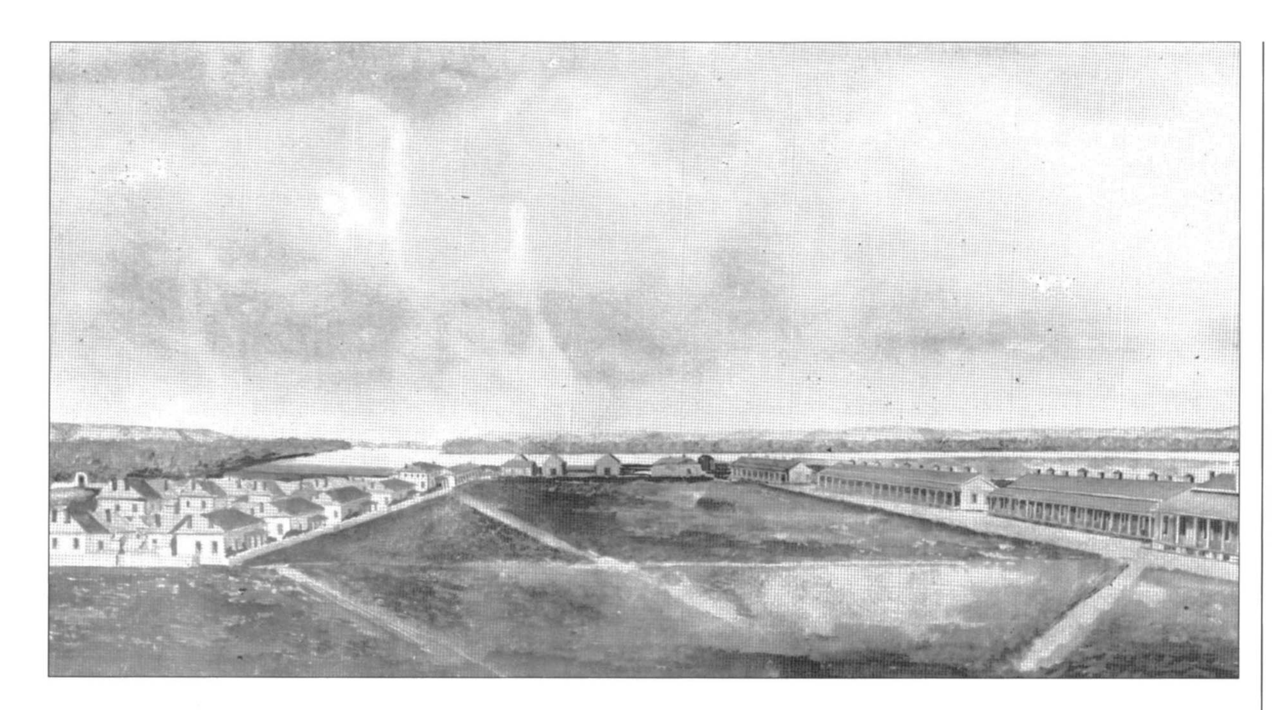
Fort Buford, 1866–67

Hastily built by one company of the 13th Infantry, Fort Buford, on the northern plains of Dakota Territory, was under constant attack during the summer of 1866. Led by Sitting Bull, the Sioux made camp across the Missouri River and watched and waited for every opportunity to harass the soldiers as they worked. Charles W. Hoffman, one of the defenders, wrote to his brother at Fort Randall: "I spent most of the holidays in shooting at the hostile Indians, who, at that time were about us here every day." On the morning of December 23 the Indians captured the newly constructed sawmill and icehouse, only to be driven off by the roar of the two 12-pdr cannon installed in a nearly finished blockhouse. On this occasion, it was reported that some of Sitting Bull's warriors made off with the circular saw blade and used it as a tom-tom.

Small detachments of soldiers detailed to collect wood, cut hay, or fetch water were particularly vulnerable to attack. To avoid these hazards, the men at Fort Buford stored as much wood as they could inside the palisade, and set about digging a well in the small parade ground. A party of miners who were obliged to "winter" at the fort were employed to work on the well, and at a depth of 20ft they struck gold-bearing sand that yielded about 10 cent's worth of gold for every quart of dirt extracted. As a result, the miners formed themselves into a company, and disappeared into the mountains next spring to find their fortunes. In May 1867, companies B, F, G and E of the 31st Infantry arrived and the post was increased to a five-company post. The Army bought nearby Fort Union and used materials from it for the new fort, which was completed by the beginning of November of the same year.

Red Cloud's War, 1866–68

The peace talks begun during June 1866 at Fort Laramie broke down with the establishment of forts Reno (originally Connor), Phil Kearney, and C. F. Smith,



Fort Buford became a major supply depot for military field operations during the 1870s. It was the site of the surrender of the famous Sioux Chief Sitting Bull in 1881. (SHSND, A3837)

on the Bozeman Trail to guard the route from the Platte River to the gold mines of Montana. The Oglala chief Red Cloud was determined to defend the Powder River Basin, the last and best hunting grounds of the Northern Plains Indians, and warned all white men to watch out for their scalps. Before the year was out, all three forts were under a state of siege, and the climax came at Fort Phil Kearney during December 1866.

Colonel Henry B. Carrington, 18th Infantry, arrived on the site where Fort Phil Kearney was eventually built along the Bozeman Trail in Wyoming on July 15, 1866. Having had several large hay mowers dragged across the Plains from Omaha, he immediately set them to work cutting the grass down – following which "Keep off the Grass" signs were erected on his new parade ground! Red Cloud sent him warnings to leave the next day, following which the Indians routed the Army horse herd. During a hasty pursuit of the horse thieves, two soldiers were killed and three were wounded. Within 10 days, five wagon trains were attacked while approaching the fort site and 15 men were killed. By the end of September, a further 15 men had been killed, 500 livestock had been driven off, and Carrington's precious mowing machines had been destroyed.

The Fetterman Massacre, 1866

During the next six months, the Indians made a total of 51 demonstrations near the fort and its occupants, killing 154 white men, and stealing a further 800 head of stock. The worst attack, known as the Fetterman Massacre, occurred on December 21, 1866. Led by Captain William Fetterman, a detachment of 67 soldiers, armed with old-fashioned, muzzle-loading Springfield rifles, was sent out to rescue a besieged wood-chopping party. Ignoring orders to remain on the near side of the ridge north of the fort, Fetterman pursued the Indians and rode into an ambush in which every man in his command was killed. This was the worst defeat experienced by the US Army during the Indian Wars until the defeat of Custer at the Little Bighorn some 10 years later.

Wagon Box Fight, 1867

The garrison at Fort Phil Kearney extracted revenge eight months later on August 2, 1867 when warriors led by Crazy Horse, High Hump, and



The attack on Fort Ridgely, 1862

The attack on Fort Ridgely, 1862
During the Dakota War of 1862, hundreds of Sioux attacked Fort Ridgely, an open fort in southeast Minnesota. Towards the end of the first day of the assault, Ordnance Sergeant John Jones manned a 6-pdr gun placed in a particularly exposed position in the western corner of the fort, between the headquarters building and some of the officer's quarters. As the Indians charged out of a nearby ravine, Jones (the bearded figure in the upper right corner with his arm raised) and his gun crew fired their piece point-blank into the oncoming hordes, stopping the attack in its tracks. The exhausted defenders held out for seven days until reinforcements arrived to drive the Indians off.

Thunderhawk attacked another wood detail within sight of the post. On this occasion, the 30 soldiers under Captain James Powell withdrew into a ready-made defensible position, formed by removing the boxes from 14 wagons, placing them in a circle, and filling the gaps with the wagon carriages. They were also armed with brand new Springfield breech-loading rifles, and had plenty of ammunition. Powell's men successfully drew the fire of the Indians so that the woodcutters could reach the safety of the fort. About 800 Indians attacked the corralled wagons and were summarily driven off with heavy casualties. A further 1,200 charged, but they were lashed by fire as soon as they came within 500 yards of the soldiers. The attacks lasted for about three hours, after which the frustrated warriors could take no more and withdrew, having sustained approximately 180 dead and wounded. The US Army lost a mere three dead and two wounded.

Attack on Fort McKeen, 1872

Violation of the Treaty signed at Fort Laramie in 1868 led to renewed warfare on the Northern Plains during the early 1870s. Established on the west bank of the Missouri River to protect surveyors of the Northern Pacific Railroad, who were working towards the Rockies, Fort McKeen (later renamed Fort Abraham Lincoln) was subjected to a number of Indian attacks during October 1872.

Trouble started when a large Sioux war party, hiding in a ravine about a mile away from the fort, ambushed several Arickree scouts as they returned to base. According to a reporter for the *New York Herald*, the scouts were "immediately surrounded, but stood their ground and fought bravely, and as soon as the firing was heard at the post, fifteen or twenty more scouts joined their comrades. The garrison was roused to arms, but before any assistance could be rendered by the troops to their allies, the Sioux had departed out of reach. It was a fierce and heroic fight on the part of the scouts, two of them being killed and one wounded."

Shortly after this, a wagon train escorted by 20 soldiers was sent out to cut wood, and was attacked by about 150 Sioux warriors. A company of the 17th Infantry, plus about 30 mounted Arickree scouts, sallied forth from the fort and pursued the Indians to the bluffs beyond, where they were described as resembling "a hive of bees which had become angered." A general exchange of fire ensued, but a few shells fired from a Napoleon gun forced the Sioux to withdraw – but not before they had set fire to the dry prairie grass.

With the blaze moving rapidly towards Fort McKeen, the *Herald* correspondent reported that a "red glare has illuminated the sky at night for miles around. To-day the 'long roll' was sounded at the Fort, turning out the entire command to fight the destructive element; the wind blowing so violently that the fire would keep pace, in some places, where the grass was tall, with a running horse; and the Post, which was greatly endangered at one time, was saved by the setting of counter fires, which were kept under control by the use of wet grain sacks in the hands of the soldiers."

The Sioux Wars of 1876–79

With the presence of gold confirmed in the Black Hills by Custer's expedition in 1874, miners started to flood into the area during the next 12 months. By late-1875, the situation on the Northern Plains had deteriorated to the point

that President U. S. Grant's Secretary of the Interior, Zachariah Chandler, asked William H. Belknap, the Secretary of War, to force the Indians onto their respective reservations. This action began the Sioux Wars of 1876–79 that witnessed the defeat of Custer at the Battle of Little Bighorn and Sitting Bull's flight into Canada.

Siege of Fort Pease, 1875

In 1875, a group of traders from Bozeman, Montana Territory, led by Fellows Pease constructed a stockade trading post on the north bank of the Yellowstone River, a few miles from its confluence with the Bighorn. Named Fort Pease, it was intended to exploit steamboat traffic once settlement had developed in the region. However, the Sioux resented this incursion into their hunting grounds, and placed the fort under a virtual state of siege. In mid-February, 1876, a party of seven men from the fort slipped through the Indian lines and reached Bozeman to get help, while 41 men remained to defend the fort. A military relief force was quickly authorized, and Major James S. Brisbin set out from nearby Fort Ellis with four companies of the 2nd Cavalry, plus a small detachment from Company C, 7th Infantry. This relief column reached Fort Pease on March 4, 1876 to find 19 survivors. Six men had been killed and eight wounded, while the remainder had escaped to the settlements further east. Although his scouts indicated that the Sioux had left the area, Brisbin ordered the evacuation of the fort. All valuable property was removed, although the flag was left flying as a gesture of defiance. Upon his return to Fort Ellis, Major Brisbin received orders to join Colonel John Gibbon's "Montana Column," one of the three being sent against the Sioux that spring.

As devised by General Phil Sheridan, the campaign of 1876 was designed to make a quick move against the Indians while they lay vulnerable in their winter camps, and before they received the usual spring reinforcements from the agencies. However, heavy snows and difficulty locating the Indians meant that a winter offensive was rapidly transformed into a summer campaign. General George Crook's column set out from Fort Fetterman, Wyoming Territory, on March 1, 1876 on what turned out to be the unsuccessful Powder River expedition against the Sioux. Fort Fetterman continued to serve as the operational base for Crook when, on May 29, over 1,000 troops under his command struck north as part of the three-column strategy envisaged to defeat the hostile Indians. This also involved General Alfred Terry setting out from Fort Abraham Lincoln, Dakota Territory, while Colonel John Gibbon's "Montana Column" was to approach from the west, having set out from Fort Ellis. The attempt to encircle and defeat the Sioux and their allies came to nothing following the massacre of Custer's battalion of the 7th Cavalry at the Little Bighorn on June 25, 1876.

Prisoners at Fort Robinson, 1877–78

Camp Robinson, in Nebraska, featured prominently in the closing stages of the Sioux War. Crazy Horse, the leader of the Lakota at Little Bighorn, was brought to the post following his eventual defeat at Wolf Mountains in 1877. When he left to take his ailing wife to her parents, he was arrested on suspicion of returning to the warpath. Taken back to Camp Robinson, he did not resist arrest at first, but when it became apparent that he was about to be locked up in the guardhouse, he pulled a revolver and a knife from the folds of his shirt. A soldier lunged at him with a fixed bayonet, and by midnight Crazy Horse had died in the nearby adjutant's office. The many hopes of the Sioux nation died with him.

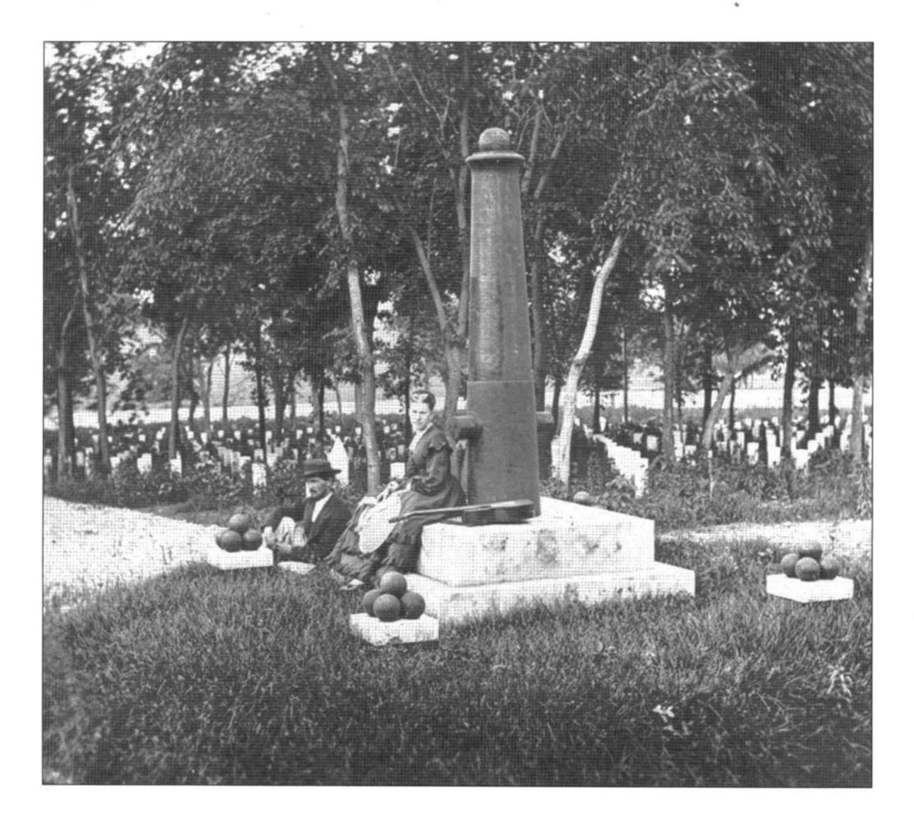
Three years later, the fate of another Indian nation was also sealed at the post, which, in December 1878, was renamed Fort Robinson. During the winter of 1878–79, the last remnants of the Cheyenne band led by Dull Knife and Little Wolf escaped from their reservation in Indian Territory. On their way

back to their northern homeland, they were overcome with exhaustion, recaptured, and taken to the fort. After an unsuccessful parley, Dull Knife refused to return to the disease-stricken reservation, stating that his people would rather kill themselves. Using weapons smuggled in by their womenfolk, the Cheyenne attempted to break out of the barracks building in which they were being held on January 9, 1879. After shooting down several guards, Dull Knife's people scrambled out of windows and doorways, and a running fight developed across the fort's grounds as the troopers of the 3rd Cavalry closed in around them. As the warriors fell wounded or dead, Indian women and children picked up their weapons and carried on firing. According to an eyewitness account published in the *Army and Navy Journal* on January 18, 1879, "This lasted for miles out into the darkness until the neighboring hills, rising like giant icebergs, were reached, and many a one stumbled and fell dead just as the mountain fastnesses were reached, where pursuit would have been impractical and safety gained."

Thirty-seven Indians died and 52 were recaptured by nightfall. On January 21, 1879, those that managed to escape were located at Hat Creek Bluffs, about 20 miles away. With 22 dead and nine critically wounded, the three remaining warriors fired their weapons for the last time, and then charged the 300 soldiers that surrounded them. True to their word, they preferred death to surrender. Believed killed in the initial pursuit on January 1, Dull Knife and a small party (which included some family members) peeled off from the main body of Cheyenne and escaped detection. Three weeks later, they struggled into the Pine Ridge Agency, weak and emaciated, and surrendered.

Surrender of Sitting Bull at Fort Buford, 1881

The spectre of Sitting Bull loomed over the Northern Plains for five years after the momentous events of 1876. While the Hunkpapa Sioux leader remained free, the Sioux War could not be regarded as over. The first of his tribe had



Located about 300 yards southwest of Fort Leavenworth, the cemetery was one of 12 national cemeteries established by Abraham Lincoln on July 17, 1862. One of its most famous occupants is Colonel Henry Leavenworth, who gave his name to the fort. Others include 10 Medal of Honor recipients, seven Confederate prisoners of war, and two soldiers killed in Operation Desert Storm. (FAM)

crossed the boundary into Canada in December 1876, while Sitting Bull himself joined them in spring 1877. Towards the end of that year, the number of Sioux refugees in Canada amounted to 4,000 Indians in about 600 lodges. However, by 1881 a combination of starvation, caused by the diminishing herds of buffalo in Canada, plus pressure from both the Canadian and American governments, forced Sitting Bull and the remainder of his band to surrender. Thirty-five families, amounting to 187 people in all, traveled with him to Fort Buford on the Missouri River. Arriving on July 20, 1881 the great Sioux chief surrendered his Winchester carbine to his eight-year-old son and told him to present it to Major David H. Brotherton, the post commander.

Wounded Knee campaign, 1890–91

By 1890, a series of forts ringed the remaining Sioux reservation country on the Northern Plains. Forts Abraham Lincoln, Yates, Bennett, Sully, and Randall had been established in the east along the Missouri River. Forts Niobrara, Robinson, and Laramie stood along the Nebraska border to the south, while Fort Meade guarded the approaches from the west. Telegraph lines connected these posts with one another and with department headquarters at Fort Omaha and St Paul. The completed railroads made it possible to speed troops to trouble spots in a matter of hours. When the Teton Sioux responded in a militant fashion towards the Ghost Dance religion which gripped many of the Plains Indians in 1890, soldiers from these forts, and many more, quickly assembled near the Pine Ridge and Rosebud agencies to frustrate a breakout.

As part of the reaction to the Ghost Dancers, orders were received to arrest Sitting Bull, who by this time was resident at the Standing Rock agency, on the west bank of the Missouri River near Fort Yates. Still defiantly opposed to the white man's ways, the Hunkpapa leader had allowed the Ghost Dance to take place in his camps. In order to avoid a possible bloodbath, Lieutenant Colonel William F. Drum, commander at Fort Yates, sent in Indian Police to make the arrest, while soldiers stood by within supporting distance. At dawn on December 15, 1890, forty-three Indian Police surrounded Sitting Bull's cabin and quickly seized the chief. A furious fight broke out, as his followers rushed to the scene. By the time Captain Edmond G. Fechet's squadron of the 8th Cavalry had arrived, six policemen and as many more Teton Sioux, including Sitting Bull, lay dead. Within a few more weeks, Big Foot's band had been massacred by the 7th Cavalry at Wounded Knee, and the Plains Indian Wars were over.

The fate of the Plains forts

As the frontier rolled inexorably westward, so the need for military forts on the Northern and Central Plains diminished. Because of their temporary nature, most of these forts had not been built as permanent structures. Abandoned and dismantled, they disappeared so completely that, in a very short time, there was little evidence that they ever existed. Bronze markers and plaques are the only indication of their original location. Some installations, such as Fort Leavenworth and Fort Riley, continued in use. Serving as a supply base throughout most of the Plains Indian Wars, the former post became the site for the School of Application for Cavalry and Infantry, established in 1881 by General W. T. Sherman. In 1946, that school evolved into the present-day US Army Command and General Staff College. Fort Leavenworth is also today the home of the Frontier Army Museum.

The Cavalry and Light Artillery School was established at Fort Riley in Kansas in 1892, and the site was designated as a national encampment for war games and maneuvers in 1901. Prior to 1917, the post became the Mounted Service School for the whole Army, while during the First World War it was designated Camp Funston, and also became a medical officers' training camp. Continuing its equestrian role in the interwar years, it became the Cavalry School in 1919, and a Cavalry Replacement Training Center in 1940. During the Second World War, the fort became one of 13 camps in Kansas selected to maintain a POW camp, and contained part of Rommel's Afrika Korps after their defeat at El Alamein in 1943. Today, Fort Riley is still an active Army post. Known as "America's War Fight Center," it is home to the 24th Infantry Division.

Fort D.A. Russell in North Dakota was declared a permanent post by the War Department in 1885 and was enlarged to a brigade-sized post in 1906. In 1930 it was renamed Fort Francis E. Warren after a Cheyenne resident who served as US Senator for 37 years. With the outbreak of the Second World War, Fort Warren became a Quartermaster Training Center. In 1947 the post was assigned to the Air Force and became Francis E. Warren Air Force Base. None of the original Fort D.A. Russell structures remain, although most of the 1885 and later red brick barracks, officers' quarters, offices, and cavalry stables survive. Also in North



Living-history experts at Fort Larned portray infantrymen assembled for an inspection of guard detail. (FLNHS)

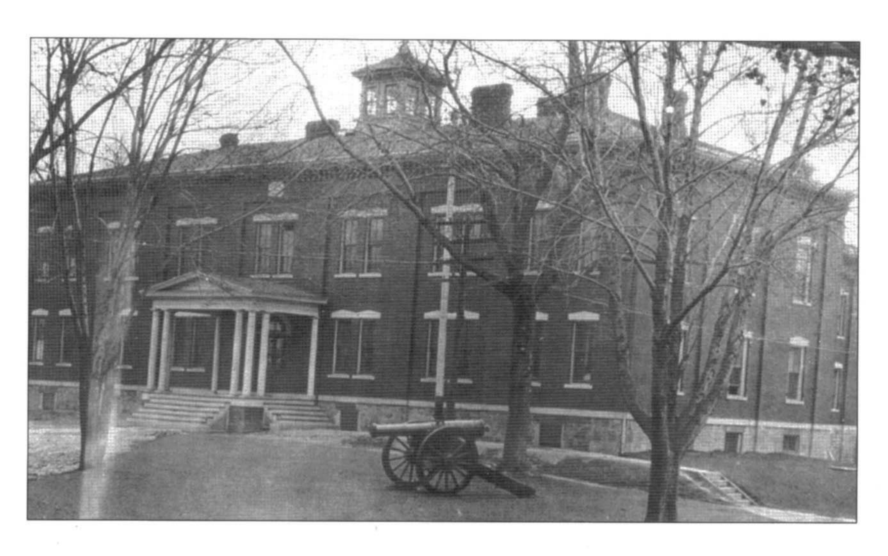
Dakota, Fort Totten served as a military reservation until 1890, when it became a boarding school for Indian children. Similarly, when Fort Shaw (named for Robert Gould Shaw, colonel of the 54th Massachusetts) in western Montana was closed in 1891, it was used as an Indian school until 1910. Some of the original buildings still exist today as part of the Fort Shaw Elementary School.

Sold to a land developer in 1858, Fort Snelling was returned to Army hands during the Civil War when it was used as a training center for thousands of volunteers who joined the Union Army. After the war, the fort became the headquarters and supply base for the military Department of Dakota. Regulars from the post also served in the Spanish–American War of 1898. During the Second World War, Fort Snelling processed over 300,000 inductees and trained soldiers in duties ranging from operating railroads to speaking Japanese. At war's end, the old fort was finally closed and handed over to the Veteran's Administration. Today, it is the site of the Fort Snelling National Cemetery, and the Fort Snelling History Center.

After the Army left in 1908, Fort Keogh in Montana was used as the Range and Livestock Experiment Station of the United States Department of Agriculture. The Army used the post again during the First World War as a Remount Station, following which it was returned to the USDA, in whose hands the site remains today.

Closed as a military installation in 1889, Fort Hays in Kansas subsequently became a branch of the state agricultural college and a public park. Today, the Kansas State University Agricultural Research Center is the largest dry-land experiment station in the world. Also based in Kansas, Fort Dodge is now the Kansas State Soldiers' Home. Likewise, after serving as a remount depot from 1908–47, Fort Reno in Wyoming was transferred to the US Department of Agriculture for an agricultural research station. Close to the Canadian border in Montana, Fort Assinniboine is today the home of the Northern Agricultural Research Center.

Through the intervention of the National Parks Service (NPS) and various state historical societies, plus local history groups, a number of other frontier forts have been preserved and/or reconstructed. Finally abandoned by the Army in 1873, Fort Scott was engulfed by the city of the same name until 1965, when the Fort Scott Historical Area was created under the joint care of the City of Fort Scott and the National Park Service, with the mission of restoring the site to its original state. In 1978 the Fort Scott National Historic Site was established under the total administration of the NPS. Other sites similarly reconstructed and/or preserved by the NPS include forts Laramie, Larned, Union, and Bent's Fort.



Originally built as a storehouse for the Arsenal Department at Fort Leavenworth in 1859, this building became the second home of the School of Application for Infantry and Cavalry in 1890. It was named Sherman Hall, after General William T. Sherman, who originally ordered the establishment of the school in 1881. That institution evolved into the US Army Command and General Staff College, which is still located at Fort Leavenworth today. (FAM)

The forts today

Although not exhaustive, this list includes the main frontier fort sites on the Central and Northern Plains owned by the National Park Service, government agencies, the local community, or those in private hands. At the time of writing, all of these sites are open to the public unless otherwise noted.

Fort Abercrombie
Location: Abercrombie, North Dakota
Length of service: 1858–77
Description: Open/later stockade fort. A reconstructed stockade, three reconstructed blockhouses, and one original fort guardhouse stand on the site.
Owner: State Historic Site
Relevant website:
www.wahpchamber.com/Fort%20Abercrombie.htm

Fort Abraham Lincoln
Location: Near Bismarck, North Dakota
Length of service: 1872–91
Description: Stockade/open fort. Headquarters of 7th Cavalry until 1882.
Owner: North Dakota Parks & Recreation Department
Relevant website:
www.ndparks.com/Parks/Lincoln/History.htm

Fort Assinniboine
Location: Near Havre, Montana
Length of service: 1879–1911
Description: Brick-built, rectangular, open fort. The largest frontier military post in Montana.
Owner: US Agricultural Experiment Station
Relevant website: ag.Montana.edu/narc/fort.htm

Fort Atkinson
Location: Fort Atkinson, Nebraska
Length of service: 1819–27
Description: Log building enclosure.
Owner: Atkinson Foundation.
Relevant website:
www-dial.jpl.nasa.gov/~steven/casde/Atkinson/fort.html

Fort Bridger
Location: Near Evanston, Wyoming
Length of service: 1842–90
Description: Stockade fort.
Owner: Wyoming State Historic Site
Relevant website: wyoparks.state.wy.us/bridger.htm

Fort Buford
Location: 612 East Boulevard Avenue, Bismarck, North Dakota
Length of service: 1866–95
Description: Stockade/open fort. The stone powder magazine and the field officers' quarters, which now house a museum, are original buildings.
Owner: Historical Society of North Dakota
Relevant website:
www.state.nd/hist//buford/buford.htm

Fort Clark
Location: Near Stanton, North Dakota
Length of service: 1830–50s
Description: Stockade fort. Only foundations of the fort structure remain.
Owner: State Historic Site

Fort D.A. Russell
Location: Near Cheyenne, Wyoming
Length of service: 1867 to present day. Only a few post-1885 buildings remain.
Description: Open fort.
Owner: US Air Force
Relevant website: wyoshpo.state.wy.us/russell.htm

Fort Dodge
Location: Near Dodge City, Kansas
Length of service: 1847–82
Description: Open fort.
Owner: Kansas Soldiers Home
Relevant website:
www.stjohnks.net/santafetrail/research/fortdodge.html

Fort Fetterman
Location: Near Douglas, Wyoming
Length of service: 1867–82
Description: Open fort.
Owner: State Historic Site
Relevant website: wyoparks.state.wy.us/fetter.htm

Fort Harker
Location: Kanopolis, Kansas
Length of service: 1866–72
Description: Open log/stone fort. Four original stone buildings survive.
Owner: Ellsworth County Historical Society
Relevant website:
www.stjohnks.net/santafetrail/research/fortharker.html

Fort Hays
Location: Hays, Kansas
Length of service: 1865–89

Description: Wood/stone open fort. Original blockhouse, officers' quarters, and guardhouse survive.
Owner: State Historic Site
Relevant website: www.kshs.org/places/forthays/

Fort Kearny
Location: Kearney, Nebraska
Length of service: 1848–71
Description: Open fort/small stockade during the Indian Wars of 1864–65.
Owner: State Historic Park
Relevant website: www.esu3.org/nebraska/ftkearny/ftkear.html

Fort Keogh
Location: Near Miles City, Montana
Length of service: 1876–1924
Description: Diamond-shaped open fort. A museum of reconstructed officers' quarters and other buildings remain.
Owner: United States Department of Agriculture
Relevant website: www.larrl.ars.usda.gov/history.htm

Fort Laramie
Location: Near town of Fort Laramie, Wyoming
Length of service: 1834–90
Description: Stockade/adobe fort/later open fort. Military post from 1849.
Owner: National Park Service
Relevant website: www.nps.gov/fola/

Fort Larned
Location: Larned, Kansas
Length of service: 1859–78
Description: Open fort with stone buildings.
Owner: National Park Service
Relevant website: www.nps.gov/fols/

Fort Leavenworth
Location: Fort Leavenworth, Kansas
Length of service: 1827 to present day
Description: A square-shaped, open fort.
Owner: US Army
Relevant website: leav-www.army.mil/cac/history.htm

Fort Phil Kearney
Location: 20 miles south of Sheridan, Wyoming, on I-90, exit 44
Length of service: 1866–68
Description: Stockade fort. Site of the Fetterman Massacre and the Wagon Box Fight. Archaeological remains plus reconstructed stockade and officers' quarters.
Owner: State Historic Site
Relevant website: wyoparks.state.wy.us/kearny1.htm

Fort Pierre Chouteau
Location: Fort Leavenworth, Kansas
Length of service: 1832–57
Description: A square-shaped, stockade fort of which little remains today.
Owner: South Dakota Historical Society
Relevant website: www.fortpierre.com/chouteau.html

Fort Ridgely
Location: Near Fairfax, Minnesota
Length of service: 1853–67
Description: Open/later stockade fort.
Owner: State Historic Site
Relevant website: www.mnhs.org/places/sites/fr/

Fort Scott
Location: Old Fort Boulevard, Fort Scott, Kansas
Length of service: 1842–73
Description: Square-shaped open fort with wooden frame buildings.
Owner: National Park Service
Relevant website: www.nps.gov/fosc/

Fort Sisseton
Location: Near Lake City, South Dakota
Length of service: 1864–90
Description: Square-shaped fort defended by earthen breastworks.
Owner: Fort Sisseton State Park
Relevant website: www.state.sd.us/gfp/sdparks/ftsiseton/ft_siss.htm

Fort Snelling
Location: St Paul, Minnesota
Length of service: 1825–1945
Description: Stone fort.
Owner: Minnesota Historical Society
Relevant website: www.mnhs.org/places/sites/hfs/

Fort Totten
Location: Bismarck, North Dakota
Length of service: 1867–90
Description: Log fort, replaced by brick buildings in 1868. Original buildings house museum exhibits.
Owner: North Dakota State Historic Site
Relevant website: www.state.nd.us/hist//totten/totten.htm

Fort Union
Location: Near Williston, North Dakota
Length of service: 1829–68
Description: Reconstructed stockade fort.
Owner: National Park Service
Relevant website: www.nps.gov/fous/

Bent's Fort
Location: Near La Junta, Colorado
Length of service: 1833–49
Description: Adobe fort.
Owner: National Park Service
Relevant website: www.nps.gov/beol/

Bibliography

Athearn, Robert G. *Forts of the Upper Missouri*, Prentice-Hall, Inc. (Englewood Cliffs, New Jersey, 1967)

Billings, John Shaw *Report on the hygiene of the United States Army with descriptions of military posts*, Government Printing Office (Washington, DC, 1875)

Carley, Kenneth *The Dakota War of 1862*, Minnesota Historical Society Press (St Paul, Minnesota, 1961)

Hart, Herbert M. *Old Forts of the Northwest*, Superior Publishing Company (Seattle, Washington, 1963)

Holden, Daniel J. and Rothman, Hal K. *The Post on the Marmaton: A Historic Resource Study of Fort Scott National Historic Site*, National Park Service (Omaha, 2001)

Hughes, J. Patrick *Fort Leavenworth: Gateway to the West*, Kansas State Historical Society (Topeka, Kansas, 2000)

Mahan, Dennis Hart *Summary of the course of permanent fortification and of the attack and defense of permanent works, for the use of the cadets of the U.S. Military academy*, Steampower Presses of Evans & Cogswell (Charleston, South Carolina, 1862)

McKale, William and Young, William D. *Fort Riley: Citadel of the Frontier West*, Kansas State Historical Society (Topeka, Kansas, 2000)

Murray, Robert A. *Fort Laramie: "Visions of a Grand Old Post"*, The Old Army Press (Fort Collins, Colorado, 1974)

Murray, Robert A. *Military Posts in the Powder River Country of Wyoming*, The Office (Buffalo, Wyoming, 1968)

Oliva, Leo E. *Fort Dodge: Sentry of the Western Plains*, Kansas State Historical Society (Topeka, Kansas, 1998)

Oliva, Leo E. *Fort Harker: Defending the Journey West*, Kansas State Historical Society (Topeka, Kansas, 2000)

Oliva, Leo E. *Fort Hays: Keeping Peace on the Plains*, Kansas State Historical Society (Topeka, Kansas, 1996)

Oliva, Leo E. *Fort Larned: Guardian of the Santa Fe Trail*, Kansas State Historical Society (Topeka, Kansas, 1982)

Oliva, Leo E. *Fort Scott: Courage and Conflict on the Border*, Kansas State Historical Society (Topeka, Kansas, 1984)

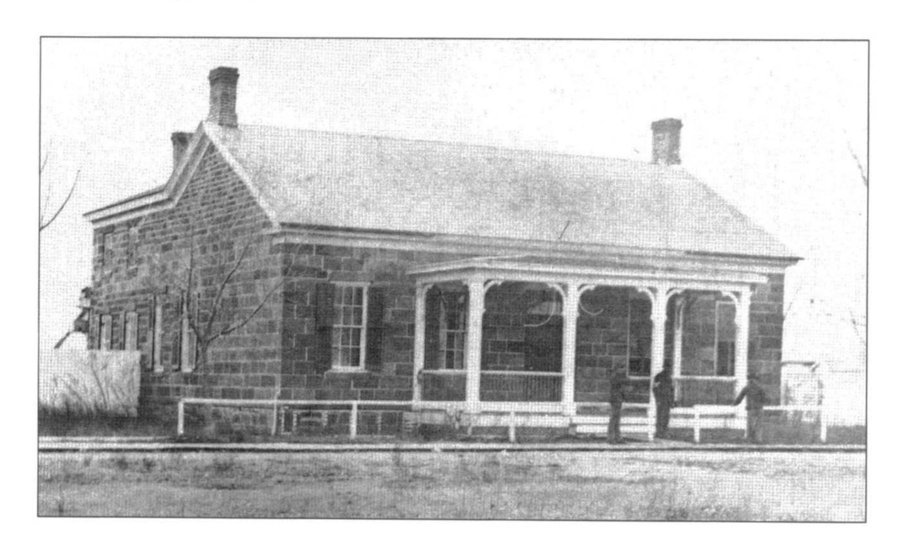
Oliva, Leo E. *Fort Wallace: Sentinel on the Smoky Hill Trail*, Kansas State Historical Society (Topeka, Kansas, 1998)

Scott, Robert R. (compiler) *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*, Government Printing Office (Washington, DC, 1880–1901)

Thompson, Erwin N. *Fort Union Trading Post: Historic Structures Report*, Division of History, Office of Archaeology and Historic Preservation, National Park Service, US Department of the Interior

United States Army & Navy Journal (New York, 1863–1891)

Ware, Eugene *The Indian War of 1864* (Topeka, 1911)



Built from expensive dressed stone, the commanding officer's quarters at Fort Larned in Kansas was comfortable and spacious. The servants' rooms above the kitchen can be seen at left rear. (FLNHS)

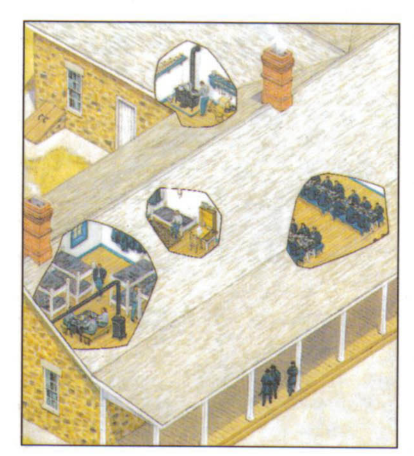
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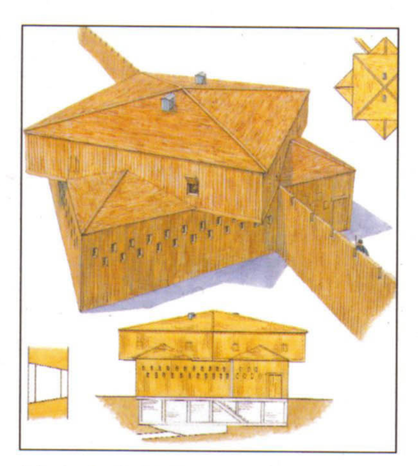
Design, technology, and history of key fortresses, strategic positions, and defensive systems

Forts of the American Frontier 1820–91

Central and Northern Plains



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A major period of westward expansion took place in the United States during the first half of the 19th century. Fur trading, the coast-to-coast railroad, the California gold rush, and the removal of Native American tribes both facilitated and encouraged America's "Manifest Destiny" to become a transcontinental nation. The task of protecting the settlers from the tribes that inhabited the Great Plains fell to the US Army, and to do this an extensive network of permanent forts was created. This title examines the design and defensive features of these forts, and considers the role they played in the settlement of the American West.

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